

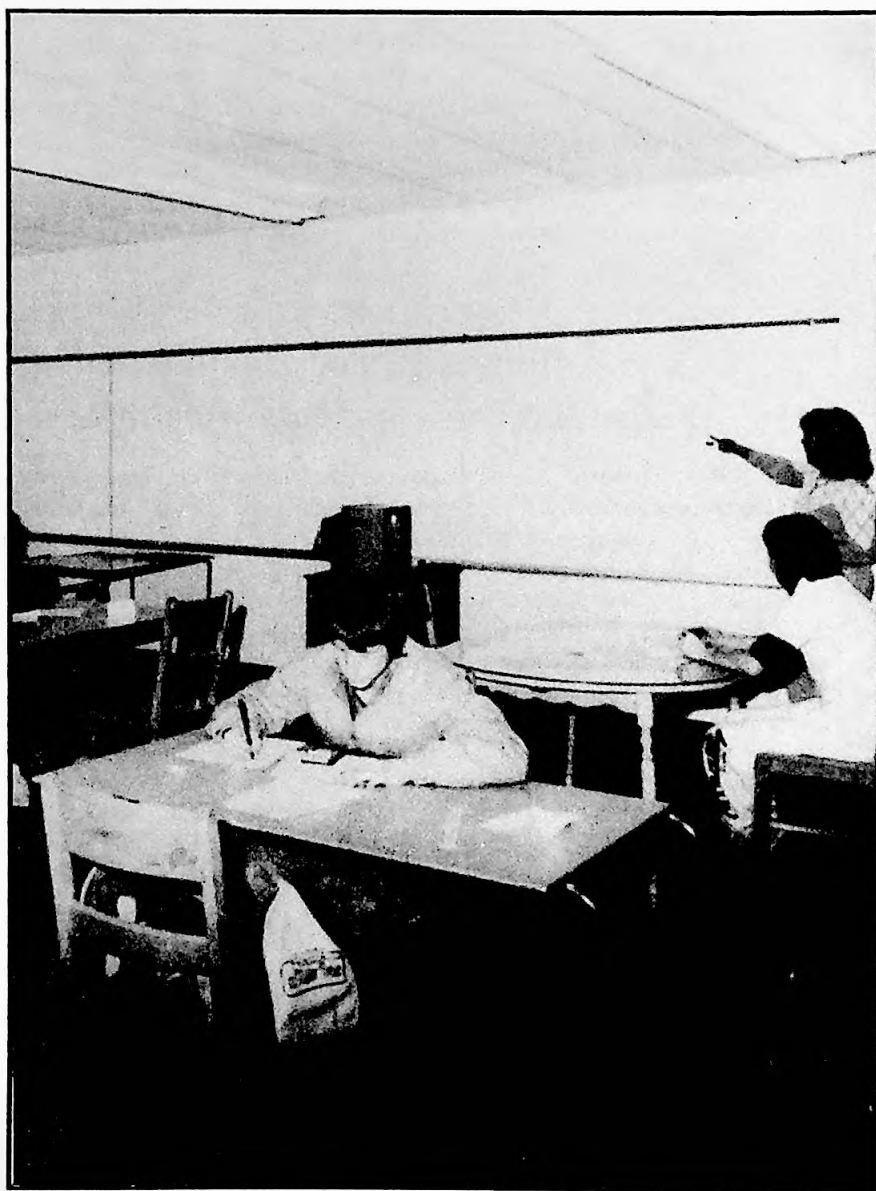


• New Proposed By-Law

THE HUMAN ECOLOGY FOUNDATION OF CANADA/
THE ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION OF ONTARIO

QUARTERLY

- What Role Does Lead Play in Ecological Illness?
- The Sick School Syndrome
- The Results of the AIA Food Allergen Survey
- Alternatives to Pesticides
- A Canadian Definition of Organic Food
- New Tax Assistance Available
- The Canadian Healthy Communities Project
- What's Happening



President's Message

I would like to thank Mary Merlin Nelson for her incredible dedication to the Human Ecology Foundation through her work with the H.E.F. *Quarterly*. Mary has resigned as Editor but hopefully will continue to assist in the production of the *Quarterly*. It is difficult to imagine how one person could have produced a quarterly journal alone for many years while other similar publications require substantial teams. A thank you from the President is scarcely adequate to express how much H.E.F. *Quarterly* readers appreciated Mary's dedication, so I would encourage you to write to Mary personally.

I would also like to acknowledge the achievements of Mrs. Carolyn Black of the Toronto Branch. Mrs. Black formed a committee and approached the Department of Finance to obtain tax credits for products needed by the hypersensitive. It is unfortunate that the Minister did not allow more of the products of benefit to the hypersensitive, but we are appreciative of this important start. Further information regarding the tax credits may be found in this issue of the *Quarterly*.

The Human Ecology Foundation of Canada is celebrating its twentieth birthday this year and I would like to acknowl-

edge the hard work and dedication of all those people who have made H.E.F. Canada possible. There are many members who have spent years making this foundation what it is today. We need to pass this knowledge on so that twenty years down the road H.E.F. Canada will continue to meet the needs of the environmentally hypersensitive. I would appreciate receiving anecdotes that you may recall from all the past years that might enlighten us about our history.

Finally, don't forget the Annual General Meeting to be held April 29. The Annual General Meeting is your opportunity to speak out about H.E.F.'s operations. Any Annual General Meeting is important, however, this year the By-Law of H.E.F. is being discussed and changes proposed. Please read the new By-Law carefully—it is included in this issue of the *Quarterly*. I hope to see you all at the meeting.

Thanks for your support.

Ed Lowans

H.E.F. President

AEHAO President

Human Ecology Foundation of Canada/ Allergy and Environmental Health Association of Ontario

The H.E.F. *Quarterly* is a publication of the Human Ecology Foundation, a volunteer non-profit, registered charity. The *Quarterly* is of interest to people who are concerned about their health and how their health is affected by the environment. Articles in the *Quarterly* deal with a variety of issues, ranging from environmental medicine to gardening concerns for the environmentally aware. Also every issue attempts to share with the reader how people have improved their health by changes in habits, diets and environment. The *Quarterly* does not offer medical advice and we urge persons wishing to experiment with changes in their lifestyle to do so with the help and guidance of a knowledgeable physician.

Human Ecology Foundation of Canada/AEHA

The objectives of the Foundation are many, however, a major focus is the promotion of the exchange of information on the prevention and treatment of environmental hypersensitivities. People who are environmentally hypersensitive are no longer able to adapt well to common and increasing exposures in their everyday environment. They may develop a variety of chronic or acute symptoms that are brought on by substances in the air, in food, in water, or in their home and/or workplace environments.

Natural inhalants such as pollens, dust and moulds, and even natural foods may begin to affect people adversely.

This aspect of the condition is often referred to as "allergy", but the many synthetic chemicals that are now common around us can also cause symptoms. Overexposure to them can trigger environmental hypersensitivities even in those people with no history of allergies or other sensitivities to the environment. Symptoms may be mild and merely annoying, or they may become severe enough to interfere with a person's daily activities, family life, and career. The Thompson Committee Report defined environmental hypersensitivity in 1985 as "a chronic multisystem disorder involving symptoms in one or more systems of the body."

On a local basis, HEF/AEHA branches work toward finding sources of chemically less-contaminated food, water, clothing, and household furnishings, as well as providing referral to counselling on changes of lifestyle that may alleviate symptoms. HEF/AEHA and its branches would like to encourage others to become involved not only in research on the effects of the environment on health, but in working toward a healthier, less-polluted environment.

Product Information mentioned in the *Quarterly* should be carefully evaluated for personal compatibility, since individual sensitivities vary widely. Mention of a product does not imply that HEF/AEHA endorses that product or service.

QUARTERLY

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Membership in the Human Ecology Foundation of Canada includes a subscription to the HEF Quarterly. The annual membership and subscription fee is \$20.

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The views expressed in the *HEF Quarterly* are not necessarily those of the Foundation.

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Message from the Editorial Board

Welcome to the March 1989 issue of the H.E.F./AEHAO *Quarterly*. As you thumb through this latest issue of the *Quarterly*, please pay attention to the new layout. The Editorial Board would be very interested in hearing what the members think about the "new" look. We need to hear your comments, both positive and negative, so write to us c/o the Allergy and Environmental Health Association of Ontario, at 10 George St. N., Cambridge, Ontario N1S 2M7.

With the gardening season just around the corner this issue contains interesting and useful articles about pesticide alternatives and Canada's own definition of organic gardening.

Also in this issue is an article of interest to all parents with hypersensitive children. Currently H.E.F. and the AEHAO have representatives actively working with school boards in Ontario to establish environmentally safe classrooms. Other articles include the role of lead in ecological illness, the healthy communities project and members' favourite tidbits. Take note of the new tax assistance for certain medical expenses, reported in the News section.

An additional and extremely important section of this issue is the proposed new By-Law for the Human Ecology Foundation. It is extremely important that every member read the By-Law thoroughly and become involved in the passing of the new By-Law by attending the Annual General Meeting on April 29, or by appointing a proxy who will attend and represent you.

The 1989 Annual General Meeting for the Human Ecology Foundation will be held in conjunction with the Annual General Meeting of the Allergy and Environmental Health Association of Ontario. The meeting is being hosted by the Waterloo/Wellington Branch based in Cambridge, Ontario.

Guest Speaker for the Annual General Meeting is science writer Lydia Dotto. Ms. Dotto is the author of *Thinking the*

Unthinkable and was the science writer for the *Globe and Mail* for many years. Ms. Dotto will be speaking to us on "Our Health in the 1990's". For additional information regarding the Annual General Meeting please refer to page 19 of this issue.

The Allergy and Environmental Health Association of Ontario is ready to forge ahead. A full complement of staff has been hired: Jacky Roddy (Executive Director), Darlene Koski (Volunteer and Community Services Coordinator), and Kathy Sage (Administrative Assistant). The office has been located in downtown Cambridge. The AEHAO would like to thank the University of Waterloo for all their assistance and Vivian Neal and Deb Connors who assisted the association before it was established and during the transition. With the establishment of an Ontario office, production of the H.E.F./AEHAO *Quarterly* should be made easier.

The Editorial Board would like the assistance of all members in producing the next issue of the H.E.F./AEHAO *Quarterly*. This is the twentieth year for the Foundation and the next issue would be an ideal opportunity to commemorate the Foundation's work and to thank all those people who have assisted the Foundation throughout the years. (Please be advised that we cannot be responsible for any material sent to us, nor can we return any pictures or articles—send copies only). In addition, a new editor is desperately needed. As many members are aware, Mary Merlin Nelson, who has volunteered many hours as editor to the H.E.F./AEHAO *Quarterly*, has resigned. The Editorial Board now has the difficult task of finding a new volunteer editor to continue the important job of producing the *Quarterly*. If you are interested or know of any person who we may approach, please contact the Editorial Board at the AEHAO office in Cambridge.

We hope you enjoy this issue of your *Quarterly*.

Reviewers Needed

Occasionally HEF and AEHAO receive books, or notices of books, that should be shared with the membership. Two books recently brought to our attention that need to be critiqued are:

1. *Powell, Donna. Why 5? A Complete Food Allergy Guide Book.* This guide book, with a forward by Dr. MacLennan, contains over 200 pages that explain the mechanics of food allergies as they affect all age groups. It provides detailed five day rotation diets and sections specific to pregnant women, newborns and special occasions. It also contains a guide for freezing and canning foods obtained during organic foods season. The book may be obtained for \$20.95 by

writing to Donna Powell at Box 25 Waterdown, Ontario L0R 2H0.

2. *Greenberg, Ron, M.D. and Nori, Angela. Freedom From Allergy Cookbook.* The cookbook contains an introduction to allergies to assist people in their understanding and coping with food allergies. Specifically, this book contains 207 wheat, yeast, and milk free recipes. This book is published by Blue Poppy Press, Vancouver, B.C. V6K 2G3. The Editorial Board would appreciate any feedback members may offer regarding these two books, or a book review on any other books recently published that claim to be of benefit to those suffering from environmental illness.



CROSSTALK

Crosstalk is a communications line that belongs to all of us. We welcome your enquiries, your comments, and the sharing of your thoughts and inspirations.

Write to: The Editor, HEF/AEHAO *Quarterly* 10 George St. N. Cambridge, Ontario N1S 2M7

To the Editor,

The articles, "Chemical-Free Furniture for the Sensitive", by Dr. Solares and by Debra Lynn Dadd prompts me to write you in the hope that you can help me.

I have many food allergies but they are under control. It is the chemical allergies, in particular the gases given off by fabrics, that are making life very difficult.

Both articles recommend that untreated and natural fibres be used for furniture and clothing. I have tried natural cotton, silk and wool but find that unless the fabric was manufactured before 1950 I do not tolerate it. Everything made since then makes me ill. (blocked sinuses, severe headache, nausea, dizziness).

I have concluded that before being woven into cloth all fibres are treated with a chemical that gives off a gas to which I am sensitive. No fabric manufacturer has been able to offer an explanation or tell me what the chemical is. Some didn't bother to answer my letter. I have had fabric sent from India and Mexico hoping it was truly natural but have the same reaction.

There is a transparent plastic sheet that I tolerate. I cover upholstered furniture with it and make an apron to wear over skirts and slacks to protect myself. I sew and make blouses from odds and ends of fabric and table linen from my trousseau of fifty years ago. Bed sheets are my biggest problem. I have two left and am now patching the patches on those.

Do you or your readers know of anyone else with this problem? I would

be glad to buy used sheets, pillowcases or usable clothing but it must have been manufactured before 1950.

The HEF *Quarterly* has been of great help to me. There hasn't been one issue since I became a member of HEF several years ago that has not had an article to which I can relate. I could have written many of them from my own experience.

Thank you in anticipation of help.
Amphion Pelley

To the Editor,

In HEF's December issue of the *Quarterly* you included a statement by Val Werier of the Winnipeg Free Press on "environmentally friendly" products. The writer said, in an otherwise excellent commentary, that "There is a process available to produce biodegradable plastic, and that should become mandatory."

As a member of the Toronto Field Naturalists and Pollution Probe, as well as of the HEF, I should like to enlarge on the "biodegradable" plastic theory by quoting Colin Isaacs, writing in Probe Post's Fall 1988 Newsletter:

"...Biodegradable plastic is a mixture of starch and plastic blended together. The starch may be broken down by bacteria in the soil causing the plastic to fall apart. Unfortunately, small pieces of plastic are no better for the environment than 'plastic sheet'."

"...no less an authority than Dr. David Wiles, director of the National Research Council of Canada's division of chemistry, asserts plastics never break down, no matter what form they come in.

[As well as removing the incentive for recycling] "...plastic waste containing even a fraction of starch will not be accepted for recycling, because the starch interferes with the recycling process and damages the quality and consistency of the recycled product. Plastics are difficult enough to recycle without this added problem!"

The disappearing plastic hat-trick is the latest in respectable environmental marketing. I have recently been handed bright green plastic shopping bags with the "assurance" that, if buried in soil for five years, they will simply disappear. Apart from the fact that few of us are going to take five years to prove the truth of this statement, it remains, as Mr. Isaacs says, the starch which is the biodegradable element in this unholy amalgam of a natural product and a molecular manufactured construct. He further stresses, that the addition of starch merely compounds the problem by rendering the plastic unrecyclable. Trillions of infinitesimal pieces of plastic are no less inimical to the environment than great unbroken stretches of this irreducible synthetic.

The plastics industry, proving that no moss grows on them, in every sense, have come up with the "solution" of biodegradable plastic with suspicious celerity. Doubtless if the starch-and-plastic mixture does not sell, they will make further brilliant scientific breakthroughs to keep their billion-dollar business turning over profitable. The fact remains: as with everything else, though more so with regard to plastics, the key to avoiding further insult to our long suffering planet lies not with endless production but with the recycling of what we already have in circulation. Heaven knows, in the matter of what is to hand, North American society is already in a state of chronic overkill.

Sincerely,
E. Davis

Lady with severe chemical sensitivities and mold sensitivity needs allergy safe place to do laundry, to rent or to live with others (even temporarily would help) in Ottawa area. Urgent! Leave message at 836-7565. Specify message is for Gail.



Toxic Chemicals Found in Carton Milk Sample

Traces of dioxin and furan have been found in milk available in corner stores, according to Diane Kirkpatrick, director of the Bureau of Chemical Safety in Ottawa. The results were based on a small sample of homogenized, 2 percent, skim milk and cream from Eastern Ontario. According to Renate Kroesa, a spokesperson for Greenpeace, a six year old child drinking two glasses carton milk every day will ingest about 15 percent of the dioxin limit considered acceptable by Ottawa. Federal researchers do not yet know the extent of the problem, but the findings have sparked a multi-million-dollar research project on dioxin in milk sold in cardboard cartons. Scientists have recently discovered traces of dioxin in samples of human milk in Quebec and in fish near a pulp mill in B.C. Several environmental groups in British Columbia called on pulp and paper mills in Canada to stop bleaching paper with chlorine. This process is believed to produce dioxin and furan. Brian McCloy, a spokesperson for the B.C. Council of Forest Industries, said the pulp and paper mills are themselves concerned about the presence of the toxic chemicals and are trying to reduce the amount of dioxin and furan produced in their process. *Globe and Mail*, October 26, 1988.

COGNITION

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New Medical Expenses Qualify for Tax Assistance

The Honourable Michael Wilson, Minister of Finance, announced on December 20, 1988, that the list of qualifying medical expenses eligible for tax assistance under the Income Tax Act is being expanded, commencing with the 1988 taxation year.

Certain items required by environmentally hypersensitive persons are now eligible for assistance. Specifically, the following items are now eligible for tax assistance:

- water filtration devices and non-carbonated bottled water required to permit consumption tolerance
- electric furnace if the existing non-electric furnace is no more than five years old, and
- fixed or portable air intake purifiers, but not including air conditioners or heat pumps.

Upon initially submitting a claim for these items, it will be necessary to pro-

vide a letter from a licensed medical practitioner certifying that the individual in respect of whom the purchase was made is diagnosed as being chronically environmentally hypersensitive and that the items are prescribed by that physician as part of the treatment. In this way tax assistance will be focused on those who are required to purchase such items rather than to the broader range of individuals who purchase the items for reasons of personal preference. Thus, in the case of bottled water, claimants are to prorate expenses to reflect their portion of total household consumption.

Disclosure Shows Medicines Aren't Always Best for Allergies

For the three and a half million Canadians who suffer from allergies, taking medicine can sometimes make things worse instead of better. Colorings, flavourings, binders, preservatives, and lubricants are added to drugs to make them more palatable, easier to swallow or absorb, or to allow for ease of manufacturing. Some of these substances are wax, talc and cellulose, which are rarely named on the product label. For the sensitive individual that can mean trouble. In August, G.D. Searle and Co. of Canada announced that it will feature full product information on all of its products. "We sensed this was a major issue for physicians, pharmacists and consumers. We received about five to ten calls from physicians a month asking us to disclose ingredients. It's good for the millions of people in Canada who have allergies," said company president Edward Fritzky. Because the move will prevent unnecessary allergic reactions in some people, it will help contain the rising cost of health care. (Alicia Priest, *Pacific Press Limited*, Vancouver, B.C.)

Pain and Healing

You learn so much from pain. Pain does not exist on its own. It is a concoction of the mind and body. When pain takes over, it can cease to inform, and begin to disrupt. Pain suppression (production of endorphines) is brought into play by the mind. Patients can be taught to reassign priority to their perceptions through such methods as hypnotic dissociation, meditation, and biofeedback. The mind can hurt and the mind can heal. Control is vital. When you have no control, there are negative changes in the steroidal, hormonal and immune systems. You must participate in your treatment. You must believe you can change your circumstances by gaining control. Health can be influenced by belief. The science of the mind is the Science of Promise. (*The Mind, Pain and Healing*, November 1988, Prairie Public TV).



ANNOUNCEMENTS

Patients' Rights

The Patients' Rights Association is a volunteer group founded in 1974 to improve health care through: acting as a patient advocate by assisting patients to get their grievances heard; advocating easier, simpler and more equitable complaint procedures; and promoting among the public an awareness of their health rights and responsibilities.

You have legal rights to:

- to treatment in an emergency
- to refuse treatment
- to voluntary informed consent
- to decide whether or not to be used for research or teaching purposes
- to an adequate standard of care
- to choose one's own doctor
- to treatment free from discrimination
- to confidentiality
- to be properly informed of the fee
- to protection of your property

The Association has produced a handbook, 'Patients' Rights in Ontario' which has more information on your rights and on complaints procedure. Write to:

The Patients' Rights Association
#315, 40 Homewood Avenue
Toronto, Ontario M4Y 2K2
(416) 923-9629

The Environmental Construction Association

The Environmental Construction Association is being formed to encourage networking among those involved in all aspects of environmental construction, i.e. non-toxic, health conscious construction techniques and materials, furnishings and appliances, for commercial, industrial and residential application.

Send information or requests for information to Ed Lowans, RR#1, Caledon East, Ontario, Canada. LON 1E0. (519) 941-6499.

The Chemical Referral Centre

If you want information on chemical products like pesticides and household cleansers, call the toll-free number set up by the Canadian Chemical Producers' Association (CCPA). The CCPA represents 73 companies and over 90 percent of the industrial chemicals and synthetic resins manufactured in Canada. Call toll-free 1-800-267-6666.

Aspartame Reactions

Health and Welfare Canada is investigating Aspartame reactions. If you have a reaction, it can be reported to:

Dr. Bruce Lauer, Food Directorate
Health Protection Branch Bldg.
Chemical Evaluation Directorate
Additive and Contaminants
Holland Ave., Tunney's Pasture
Ottawa, Ontario K1A 0L2

EVENTS

April 13 to 15

The Candida Research and Information Foundation (CRIF) is sponsoring several public lectures featuring Dr. Ari Wojdani, PhD and Dr. M. Crandall.

As well, Dr. Crandall will meet with a smaller group of people suffering from Candidiasis. Call CRIF, (416) 656-0047, for more information on the above events.

April 27 to 29

"Music Therapy: Reaching Out by Reaching Within".

Inquiries: Bill Shugan, Conference Chairperson, Canadian Association for Music Therapy, 124 Craig Henry Drive, Nepean, Ontario K2G 4J1 (613) 723-1270.

April 28

The third annual symposium on "Pollution and Education, Working Together to Create Healthier Schools" will be held on Friday, April 28, 1989 from 9:30 am. to 3:30 pm. at the Ontario Institute for Studies in Education (OISE), 252 Bloor St. W. Toronto.

The keynote address will be given by Colin Isaacs from Pollution Probe. This year's symposium will focus on practical solutions to the problems faced by parents, teachers, and boards of education regarding pollution and education.

The registration fee is \$60.

For further information about the

symposium or the Interagency Working Group, contact Jill Witherspoon, Toronto Board of Education, 155 College Street, Toronto, Ontario M5T 1P6 (416) 591-8037.

May 23 to 27, 1989

First World Congress on the conservation of the Built and Natural Environments: "Conservation and Industrial Development" will be held at the University of Toronto.

Organized by the Heritage Trust. Inquiries: Dimensional Travel Incentives Limited, 2 St. Clair Avenue West, Suite 1108, Toronto, Ontario, M4V 1L5. (416) 963-8900.

July 30 to August 2

The 44th Annual Meeting of the Soil and Water Conservation Society will be held in Edmonton. The theme for the event will be "Making Conservation Happen, Together".

The conference program will focus on ways to achieve coordination and teamwork in natural resource conservation and will include a special session commemorating the work of Dr. William Larson, head of the Department of Soil Science, University of Minnesota, St. Paul. For more information, contact Alan Epps, Soil and Water Conservation Society, 7515 Northeast Ankeny Rd., Ankeny, IA 50021-9764, USA (515) 289-2331.

Low-Level Exposure to Lead in Relation to Disease

Virginia Salares, PhD

Lead is present in endless applications in our modern society such as solders in food cans, plumbing and electronic circuits, batteries, crafts, newsprints, insecticides and as anti-knock additives to gasoline. The massive consumption of lead since the Industrial Revolution has made lead a pervasive contaminant of our environment.

Lead has no known biological function in humans. At high levels of exposure, it causes clinical poisoning that can progress to coma, convulsions and death. Fortunately, the occurrence of lead intoxication, which usually resulted from ingestion of lead-based paints or use of lead-glazed earthenware, has decreased markedly.

Toxicity to the Body

Various organ systems, particularly the hematopoietic system, the nervous system and the renal system are affected by lead. There are also effects on the thyroid (impairment of iodine uptake) and on the myocardium.

The inhibition of heme synthesis, which gives rise to anemia as the clinical end result, has biochemical markers that are measurable. There are two enzymes in the heme pathway which are inhibited by lead: delta-aminolevulinic acid dehydratase and ferrochelatase. The latter catalyzes the incorporation of iron in the heme.

Blood lead is a useful indicator of lead status. It reflects both recent intake and input from skeletal deposits.¹ Past exposure can be measured from segmental hair analysis, a process which is tedious.

The neurotoxic effects of lead have long been recognized. Both the peripheral and central nervous systems can be affected. There is evidence that subtle neurological effects of lead might occur without accompanying signs and symptoms of overt lead poisoning.² The blood lead level has been correlated with mental retardation.³ At levels which are clinically asymptomatic, minor neurological and motor impairment have been detected.⁴ Adverse psychological effects in adults may be produced at doses which are insufficient to produce clinical effects.⁵ A possible connection between lead absorption and criminal behaviour has also been raised.⁶

Children are Vulnerable to Lead

There are two routes of absorption of lead: ingestion and inhalation. Absorption by children is much more efficient; 50 percent of the lead that reaches the gastrointestinal tract is absorbed compared to eight percent in adults.⁷ Since children

inhale far more air per body weight compared to adults, the amount of inhaled lead in children is greater. From experiments on rats, it can be inferred that the young retain lead to a greater extent than adults.⁸

Low-level exposure to lead has been correlated with intelligence deficiencies⁹ and behavioural disorders.¹⁰ Urinary lead excretion in hyperactive children was found to be twice as much as in "normal" children.¹¹

Several studies have demonstrated a change of 3 to 4 points in the IQ of the young population—a change that can be shown to result in a statistically significant increase in the number of mentally retarded children.¹² The social implications are grave—the population is being subtly affected by the neurotoxic effects of lead.

Fate of Absorbed Lead

Every person carries a lead burden. Lead is known to cross the placental barrier and it has been found in embryos as early as the 12th week of gestation. The lead burden at birth is determined by the lead burden of the mother. There are also paternal influences which are passed through the sperm.¹³

The majority of the total body lead is in the bones. Lead is also taken up by soft tissues with the highest concentration found in the aorta, followed by the liver, kidney, pancreas, lungs, testis, spleen, heart and brain.¹⁴ The total body burden varies with the geographical location and increases with age.

Lead in Relation to Chronic Diseases

The ubiquitousness of lead raises questions about its role in disease. It has been implicated in cancer,¹⁵ and suggestions have been made of a possible role in multiple sclerosis.¹⁶ Animal studies have shown morbidity and mortality in succeeding generations at doses which do not interfere with normal growth and individual survival.¹⁷ Furthermore, it was shown to increase susceptibility to infections.¹⁸

What Role Does Lead Play in Ecological Illness?

The presence of lead in organs of people with no overt exposure coupled with the known pathological damage to organs such as the kidney and brain at clinical doses suggest that sub-clinical levels could be a causative factor in the development of ecological illness. Subtle impairment or decreased efficiency in functioning of one or more organs could result from continuous low-level accumulation. The lead insult at birth and over time could be a strong predispos-

Sub-clinical levels of lead could be a causative factor in the development of ecological illness and could be a strong predisposing factor to other vectors such as virus, pesticides or parasites.

ing factor to other vectors such as viruses, bacteria, yeast infections, pesticides or parasites.

**Prevention By Nutrition
and Environmental Control**

Dietary factors are known to affect lead absorption. A low calcium diet was found to increase susceptibility to lead 20-fold. Deficiencies in iron and zinc promote lead uptake. Vitamins C, D and E, selenium and copper influence susceptibility to the toxic effects of lead. Low or high protein diets and high dietary fat increase the severity of lead exposure. An appropriate diet containing low fat and normal protein and adequate nutrients can help minimize accumulation of lead. The role of nutrition is preventive rather than reducing a previously accumulated burden of lead.¹⁹

A complete environmental control of all recognized sources of lead exposure prevents further accumulation in the body. Lead is present in foods, in water and in the air. The lead intake from these sources can be reduced.

Removal of Lead

It is known that even when exposure to lead ceases, the rate of excretion is slow.⁷ The therapy for clinical cases of lead poisoning is by the use of chelating agents. There are disadvantages of this method: the body can be depleted of essential minerals and the chelating agents are themselves toxic.

There is a little doubt that the general population carries sub-clinical levels of lead. Those with manifestations of less than healthy condition could benefit from a reduction of the total body burden. Since there is no known function of lead in the body, a reduction for even those with no disease symptoms can only be beneficial.

A study on rats showed that ascorbic acid is an effective chelating agent for lead. Its action was found to be synergistic with EDTA, a standard chelating agent.²⁰ The Brain Bio Center in Princeton, New Jersey has been using zinc and Vitamin C in the treatment of psychiatric patients and lead

workers and has found blood lead levels significantly reduced.²¹ The highly promising results warrant further research on this nutrient therapy.

Virginia Salares has a doctorate in chemistry. A mother of two environmentally sensitive daughters and a healthy son, she also heads Environmental Consulting Ltd. which specializes in environmental housing.

Notes

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The Sick School Syndrome

Sherry A. Rogers, M.D.

Does your child appear sick of school? Maybe he or she is only sick at school. Brain function may be adversely affected by the chemical and fungal environment at school. Your child could be a victim of one of the mysterious causes of learning disability, the Sick School Syndrome.

Dan was a gifted, well-behaved child and had all A's in school. This year, however, he began having behavior problems every afternoon in school. At home on Saturday mornings he was uncontrollable by ten o'clock. His mother used the phrase that she had to practically "scrape him off the walls" because he was so wild and uncontrollable. He invited disaster, and punishments made no difference; in fact, he just laughed at them even while he was being spanked.

We did a single blind test on Dan. That is, neither he nor his mother knew what he was being tested for until the day's testing was done. The first test was with normal saline solution (salt water) three times at 10-minute intervals. Nothing happened, he continued to happily draw rocket ships on his tablet. But when he was tested with a minute dose of a chemical called phenol he threw the tablet down, laid down on the floor and started viciously kicking the walls.

His mother exclaimed, "This is exactly what happens every afternoon in school and on Saturday mornings." To turn the reaction off we then injected a minuscule dose of phenol and his behavior returned to normal.

Ned's reaction to the same problem was different. When he was at school, he would get doopey, spaced out and couldn't think clearly. His grades dropped, he became irritable, and his personality and concentration were poor.

When we began the single blind test on him he was engrossed in writing and drawing cartoons. He did not react to the saline solution. We then injected a chemical called benzene to find out if he was sensitive to it and if he would react. Ned definitely did have a reaction, he lost interest in drawing and writing and tried to lay down and take a nap. He was irritable with his mother and just wanted to be left alone. When the next dose was injected to turn off the reaction, he returned to his vivacious and perky self. I must explain that we use benzene, a known carcinogen, only for testing, not for desensitization. This will be explained more fully later in the article.

One wonders why these two children developed such bizarre reactions to chemicals that most people have never even heard of? It is not unusual; actually this sort of thing is happening all the time.

It is not limited to school buildings, but when it does happen in schools it is called the Sick School Syndrome. Because, indeed, the school building is sick because of recent renovations, new construction, new carpeting, furnishings, art supplies, glues, strong cleaning solutions, a heating system contaminated with dust and mold, or because the building has been made too tight in an effort to save energy.

These sick buildings do not breathe well; they do not exchange sufficient indoor air with outdoor air to dilute the toxic elements within the building.

When buildings don't "breathe" the air inside becomes toxic. Any thing that can be breathed into the lungs can enter the blood stream; it doesn't matter whether it has an odor or not. Even odorless carbon monoxide can kill when it is breathed in and enters the bloodstream.

The same thing happens from benzene, toluene, phenol, trichloroethylene, xylene and many other common chemicals that outgas from floor finishings, room fresheners, furniture polish, paints, adhesives, paper products and caulking.^{1,2} Some of these things continue to outgas for as long as twenty years and continuously emit small amounts of these chemicals into the air. Other products may outgas more quickly and their chemicals are not noticed by the majority of people after a few days or weeks.

Sometimes outgassing can be accelerated by a bakeout³ of the sick building. To do this, over a long weekend turn the heat as high as possible. This can raise the levels of the chemicals in the building by as much as 400 percent so be sure to open the windows to let the chemicals escape. Air the building out thoroughly before being occupied again. Repeat as many times as needed. This procedure usually reduces the chemical levels in the building by as much as 25 percent. Consequently, fewer people will have symptoms when they are in the building.

Sick buildings are not toxic to everyone, only to some individuals. One theory is that the detoxication enzymes in the livers of most people are strong enough so that everyday

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chemicals don't bother them. In a certain percentage of people, however, these detoxication enzymes are malfunctioning and these people actually become hypersensitive to "normal chemicals".

Ours is the first generation to be exposed to all these chemicals. We spend over 90 percent of our time indoors, and most people do very little heavy physical labor. We don't really know the long-term and cumulative effects of all these chemicals in the bloodstream and how they are affecting the gene pool of future generations.

As mentioned earlier, benzene is a known carcinogen. In other words, it causes cancers, leukemia being the most common one. Just filling the gas tank of your car can cause measurable levels of benzene to show up in your bloodstream and still be there hours later.

Measurable levels of trichloroethylene can enter your blood stream just from picking up clothing from the dry cleaners. Anyone who wears a freshly cleaned suit all day will retain measurable levels of the chemical for a day or two afterwards.⁴

There are, of course, enormous variations in the amounts and types of chemicals that people are exposed to, as well as tremendous individual variations in tolerance and ability to detoxify. No two people are biochemically the same, and therefore, do not react in the same way to these 20th century insults. Some people have much more active detoxification systems, and are seemingly unaffected, but we're not sure what the long-term effects might be.

People who become irreversibly sensitized to a few chemicals, however, may start reacting to other chemicals that had not bothered them before. This is called the "spreading phenomenon" and is widely recognized among physicians specializing in environmental illness, or E.I.

Furthermore, different people react differently. As we saw, Dan and Ned had completely opposite reactions. One got hyper and charged up from chemicals; the other became sluggish and withdrawn.

Some children will go through both of these phases, usually the hyper one first followed by the washed out phase. This is much like the highs and lows of other drugs such as alcohol and street drugs, which have to be detoxified by the same body systems.

To complicate matters, some people appear to have inconsistent reactions. This makes uninformed observers insist the victims are malingering. But, in truth, no one is ever the same exact person at two different moments in time. Body chemistry is in a constant state of flux.

Likewise, one day all the detoxication systems may be operating and no reactions occur from a chemical exposure. The next day, some of the detox pathways may be blocked (by the cumulative effects of such things as trichloroethylene from a dry-cleaned suit, benzene from putting gas in the car, an overexposure to auto exhaust, sleeping on sheets with fresh fabric softener, writing with a felt-tip pen) so that the same chemical gets short circuited to the metabolite called chloral hydrate which causes a dizzy, dopey, spacey, fatigued feeling.

As well as getting blocked from an overload of other chemicals, detoxication pathways may suffer a depletion of vital minerals, vitamins, amino acids and fatty acids. This causes them to become dysfunctional and result in a further backlog and redistribution of toxic chemicals and their metabolites.

There are a number of ways this problem can be diagnosed. A simple and inexpensive way is to take the child outside and see if he or she improves in the fresh air. Begin noting the times and places where reactions most often occur. For example, concentrations of formaldehyde are especially high in shopping malls and recently renovated places or where the carpets have just been cleaned. When exposed to chemicals, many children will have backaches, leg aches, headaches, burning eyes or unwarranted depression.

We do a blood test of the levels of the suspected chemical before and after exposure to the suspected place as another way of determining whether the child is being affected by exposure to chemicals. For example, Dan's blood level of phenol after a day at school was found to be many times higher than it was when he was not at school. Additionally, if the condition is seriously resistant, it would be desirable to have a test done on the blood and urine levels of nutrients that are crucial to optimal functioning of the detox system.

Last, but not least, do the single blind test described earlier by injecting a minuscule amount of the chemical under the first layer of skin. This is a much smaller amount than any that the average person is exposed to on a day-to-day basis. If the person is sensitive to it, a dose can be found that often duplicates the symptoms; and then the next lower dose is usually the dose that turns off, or neutralizes, the symptoms.⁵

We try to avoid using chemicals to desensitize our environmentally ill patients because we prefer to have them live in a clean environment. We want them to avoid exposure to the chemicals so they won't get symptoms and have to depend upon neutralization. The long-term effects of these chemicals is not known, but it certainly is not optimistic.

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Perhaps the people who are reacting now are like the miner's canary who warned of the toxic gases in the mines; and perhaps they are more vulnerable to other serious damages like cancer. Or perhaps their intolerances are a safety feature that makes them avoid these chemicals, which may be triggering cancer 10 to 20 years later in others who seem to be unaffected by them now.

For now, however, parents of children with the Sick School Syndrome can get them out into fresh air as quickly as possible after they come home from school to help them simmer down and get aired out. Parents can discuss the problem with the PTA and ask the schools to use biodegradable, nonodorless, and non-toxic cleaning products that don't contain toxic, smelly formaldehydes, phenols, trichloroethylenes and benzenes.

Suggest opening the windows of the school building periodically to allow the gases to escape; ask teachers to be alert for erratic or unpredictable behavior in the children for no apparent reason. When in doubt, a specialist certified by the American Academy of Environmental Medicine can help unravel the mystery. A common cause of children being put in slow learner classes is hidden food and mold allergies and hidden chemical sensitivities.⁶

Chronic exposure to these chemicals has also depleted the systems of many people of precious vitamins and minerals. Blood tests are necessary to determine whether some of these levels are too low. It is especially important to have proper levels of vitamins and minerals to insure the integrity of the detoxification enzyme systems in the liver. Schoenthaler, a criminologist by training, published many studies showing a 15 percent improvement in behavior and learning ability in institutionalized children by merely removing sugar and additives from their diets and identifying and correcting unsuspected vitamin deficiencies.⁷

Areas such as art rooms with kilns, inks, paints and art supplies made from 20th century hydrocarbon or petrochemical derivatives should have huge ventilating hoods and exhaust fans to carry the odors and gases outside. The contaminants also need to be removed from the chemistry and biology rooms where dissections of formaldehyde-preserved animals are done and from rooms where copy machines are used.^{8,9}

School rooms need periodic culturing for excess mold. Placing special filters on heating/air conditioning ducts can

also help reduce molds and chemicals. Check to see that roof top "fresh air" intake ducts do not suck fumes into the building from a flat-top tarred roof where the sun's rays volatilize the tar.

We need to learn how to deal with this monster we've created in our 20th century environment; and learn how to diagnose and treat the symptoms before they become misdiagnosed and incorrectly labeled as mental problems and learning disorders.

Physicians interested in learning the techniques mentioned may contact the American Academy of Environmental Medicine, Box 16106, Denver, CO. USA 80216. Conferences and seminars are held regularly. The AAEM annual scientific congress will be at Lake Tahoe, Nevada, in October 1988. Additional information on the meeting appears elsewhere in this issue.

Dr. Rogers practices in Syracuse, NY, where she specializes in environmental medicine. She is the author of The EI Syndrome, Prestige Publishing, Box 3161, 3502 Brewerton Road Syracuse, NY 13219, 1986.

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Notes

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² *Ibid.*, *Sources and Emission Rates of Organic Chemical Vapors in Homes and Buildings*, pp. 3-7, Ozkaynak, H., P.B. Ryan, Harvard; L.A. Wallace, et al, EPA, Washington.

³ *Ibid.*, *Bakeout of an Office Building*, pp. 22-26, German, J.; L. Alevantis, G. Kulasinger, California Department of Health Services, Berkeley, CA.

⁴ Lasseter, J. "Trace Levels of Organic Chemicals in Body Tissues and Fluids," Second Annual International Symposium, "Man and His Environment in Health and Disease," February 16-19, 1984. Available on cassette tape from InstaTape, Monrovia, CA.

⁵ Rogers, S.A. "Diagnosing the Tight Building Syndrome," *Environmental Health Perspectives*, 76, pp. 195-198, 1987.

⁶ Rapp, Doris J., *The Impossible Child*, Practical Allergy Research Foundation, P.O. Box 60, Buffalo, NY 14223-0060, 1986.

⁷ Essman, W.B., ed. *Brain Function and Nutrition*, Karger, NY, 1986.

⁸ Small, Bruce, *Recommendation for Action on Pollution and Education in Toronto: A Report*, RR#1, Goodwood, Ontario, LOC 1A0.

⁹ *Indoor Air Pollution and Housing Technology*, *ibid.*

Results of the AIA 1988 Food Allergen Survey

This non-scientific survey was sent out to 3,000 AIA members in an attempt to determine what foods were most frequently implicated in adverse reactions and if there were any "safe" foods. There were 418 replies, a response rate of over 13.9 percent. A very interesting note is that only one response reported one food allergy. The rest reported multiple food problems. A single adverse reaction to food is the exception rather than the rule!

The dirty dozen, the top twelve offenders were:

Milk was the number one villain reported by our members; over half of those who responded listed it as an allergen. Most reported digestive problems and 11 reported an anaphylactic reaction.

The category of grains, was the second most significant group. Wheat, corn and oats are all in the top 12 offenders. Gluten and rye were not far behind. The safest grain appears to be arrowroot probably because it is the least used. Besides digestive problems, various specific problems were listed such as sore mouth and throat and arthritic problems. Anaphylactic reactions were reported to corn(1) and to soybean(2).

Chocolate caused distress to many of our respondents. Most problems were in the Category E (nervous system) and one reported anaphylaxis from chocolate. Caffeine's major problem area was also nervous system reactions.

Peanuts were a great offender. Compared to other foods, a high proportion of respondents reported anaphylactic reactions to peanut. Other nuts were also reported as a cause of anaphylactic reactions and many digestive problems.

Eggs were another food that caused a high number of anaphylactic reactions. There was no statistically significant difference in the numbers of those who reacted to yolk-only or white-only. Of this group, three reported anaphylaxis to the yolk and five reported anaphylaxis to the white of the egg.

In the category of meat, pork was the worst offender, followed by beef. The least reported meats were chicken and veal. Most reported digestive problems from meat and poultry. One anaphylactic reaction was reported from veal, one from chicken and one from turkey. Fish was an irritant to a small number, salmon being the leader in this category, followed by tuna. Three reported anaphylactic reactions from fish. Shellfish was a problem to some and of those who reported — six have an anaphylactic reaction to shellfish. What really struck us as we did our number crunching was the strong correlation between peanuts/nuts and shellfish al-

lergy. A significant number of respondents noted both nuts and fish as giving them problems.

Tomato was the greatest offender in the fruit category with skin reactions the major concern, but one person listed an anaphylactic reaction. The citrus fruits; oranges, grapefruit and lemon caused problems and again one report of anaphylaxis and many reporting skin rashes. Bananas and grapes were next in line reporting digestive problems followed by strawberries and raspberries, with skin rashes the worst. It would seem from our surveys fruits least likely to cause a reaction are rhubarb and blueberry.

Beans, peas, potato, green pepper and onion were the major villains in the vegetable category. Most caused digestive problems. Onion was cited as a trigger of nervous system reactions. One person reported an anaphylactic reaction to peas.

Mushrooms were frequently reported and a surprising number reported a nervous system reaction as the most troublesome. The greatest area of concern for those reactive to yeast or mold was digestive, followed by nervous system problems.

Herbs are not a problem for many but mustard was the worst offender and parsley the least. There was a report of anaphylaxis to mustard(1) and to mint(1).

The leader in the food additive category was MSG, many reporting nervous system problems followed by digestive problems. Sulfites were next, followed by aspartame. Many reported faintness, irregular heart rate, swelling throat and four reported an anaphylactic reaction (2 from sulfites and one each from MSG and aspartame). More individuals reported reactions to red and yellow food coloring than blue. Most reactions were in the nervous system, but two people reported an anaphylactic reaction to food colours.

Wine was said by many to be distressful, followed by cheese and cashew nuts and cucumber. An anaphylactic reaction was reported from honey, rosemary seasoning, ocean perch, sesame seeds, organ meats (liver), poppyseeds, pizza, cumus.

In other words, the reports of reactions ran the gamut from anchovies to zucchini. There is not a food that does not cause someone some distress.

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Advances in Pesticide Research

Chemical pesticides are the product of a \$1.8 billion global industry. While reliance on these pesticides has been characteristic of mainstream farming, there is a trend in North America towards developing and using alternative pest control techniques. The challenges posed by competitive international markets, soil degradation and groundwater contamination have made it necessary for farmers to find new ways to reduce production costs and preserve the environment.

In Canada, the Agriculture Canada Research Branch has been exploring options to reliance on pesticides. Using an Integrated Pest Management (IPM) approach, farmers can cut costs, protect crops from pests, weeds and disease and reduce chemical use.

The IPM approach does not eliminate the use of pesticides, it provides alternative measures to reduce their use. These include pest-resistance strains of crops, the use of parasites and other insects to prey on pests, and careful monitoring of insect activity to allow selective application of pesticides.

Application of the IPM approach in the Niagara region of Ontario has resulted in a 25 percent reduction in pesticide use and a net savings to growers of \$100 per hectare. The Ontario apple growers also have access to an "agri-phone", a free phone-in service operated by Agriculture Canada's Research Station in Vineland. This service gives information on pest activity and recommends spraying times. In British Columbia's Okanagan Valley, insect monitoring and selective use of pesticides have also been widely accepted for many years.

South of the border, there is a similar trend away from reliance on pesticides. Garth Youngberg, Executive Director of the Institute for Alternative Agriculture in Maryland, estimates that some 30,000 to 40,000 of America's 2.2 million farmers are now using few pesticides or none at all. Instead, they rely on such tried and true farming techniques as alternating crops.

Crop rotation is in fact the back-bone of alternative pest control. Insects that feed on one particular type of grain are starved out during the year in which that crop is not produced. Such an approach is not simply a "back to nature" technique;

it has proven successful even for the mechanized mid-size 243 hectare (600 acre) farm.

Ridge tilling is another non-chemical option. Crops are planted in mounded ridges of soil in order to substantially reduce disturbance of the top soil during planting. This has proven to be an effective means of controlling soil erosion and weeds. Increasingly, organic mulches are also used. Although these techniques require more intensive labour, by limiting or eliminating the cost of expensive pesticides, a farm can have very low capital input.

In Canada, the success of initiatives in the fruit industry may serve as a model for other commodities. In the USA, some universities and production groups are turning their attention to developing and creating a broader awareness of alternative farming techniques. Groups such as the American Institute for Alternative Agriculture are providing academics from many fields with a forum for exchange and for exploration of new possibilities.

However, large-scale investment in and coordination of research is also required. Biotechnology is a high-tech alternative pest control strategy which requires government involvement, but offers promising options. The USA, for example, is planning to import a moth from Greece which eats the roots of the knapweed, a mildly toxic plant covering the American Pacific northwest rangelands. Also, new plants which are naturally resistant to pests may be developed.

In view of the benefits gained from these Canadian and American initiatives, the need for further development of bio-control as well as the more simple alternative techniques is clear. For more information about pesticide alternatives and their use contact Agriculture Canada, Research Branch, Sir John Carling Building, Ottawa, Ontario K1A 0C5. In the USA, contact Garth Youngberg, Executive Director, Institute for Alternative Agriculture, 9200 Edmonston Rd., Suite 117, Greenbelt, MD 20770, USA.

Reprinted from Sustainable Development, a periodical published by the Canadian Wildlife Service, Environment Canada. Vol.9 No.2, August 1988.

Alternative Pest Management

Many city dwellers expect instant solutions when it comes to controlling insects and weeds in their gardens and back yards: simply spray a pesticide and the problem is solved. Unfortunately, it's not as simple as that. Pesticides are poisons, otherwise they wouldn't work.

Like any poison around the home, pesticides should be used as a last resort and with extreme caution. There are a number of biological and cultural options that, from an environmental and health viewpoint, are more attractive. A rigorously followed pest management program around the home and garden will hold pest populations at a level where pesticides will seldom be required and then only as a last resort.

Why Try Alternative Pest Control?

Pesticides are toxic to many forms of life in addition to the species to be controlled. Honeybees and useful predatory insects such as ladybugs can be killed outright when the pesticide is applied. Pesticide residues can accumulate in the food chain, causing damage to birds, fish, and other forms of animal life. In many cases these side effects are not immediately apparent, but show up later; for example, in the abnormal eggs laid by birds that have fed on pesticide-treated insects. Ultimately some side effects may extend to human life as well.

Alternative Methods of Pest Control

Trees and Shrubs

In the majority of cases, damage by insect pests is more troubling to the homeowner or resident than it is to the plant. Most trees and shrubs can survive an infestation by pests. And there are several ways to control pests without resorting to chemical pesticides.

- Pick off infested leaves by hand and dispose of them. This will control moderate infestations of such pests as the *lilac leaf miner*, *leaf rollers*, and *spruce budworm larvae*.

- In late fall or early spring, prune off branches containing the greyish egg bands of the *forest tent caterpillar*. Use a knife to scrape the egg bands off the larger limbs.

- If *forest tent caterpillar* eggs have hatched, pick off larvae by hand when they cluster together in late evening or on cool days.

- Using a garden hose, direct a strong stream of water against trees and shrubs to dislodge insects. This is effective against *spider mites* and *pear slugs*, as well as other pests.

- Trees infested with *bronze birch borer* and showing advanced top and branch kill should be removed and destroyed between late fall and spring. On trees showing early signs of die-back and decline, prune 30 to 50 cm below all dead branches and tops in late fall and destroy pruned branches.

- Make your own safe insecticide by adding 30 ml (2 tablespoons) of soap flakes to a litre of water and dousing the infested leaves. Use ordinary soap flakes (not laundry detergent) or Safer's Insecticidal Soap, and apply the solution with a watering can.

- If a pesticide is needed, try a biodegradable product such as the biological insecticide *Bacillus thuringiensis* (the label will say "thuricide" or "biological insecticide") or a botanical containing pyrethrum. Pyrethrum is a natural substance derived from flowers of the chrysanthemum family; both it and *Bacillus thuringiensis* are relatively safe to use.

Lawns

2,4-D and its cousin compounds are commonly used to rid lawns of dandelions and thistles. These compounds are biological poisons and may remain on the lawn for a number of weeks.

- Whenever possible, dig out the weeds by hand.
- Keep your lawn well watered and fertilized. A healthy lawn is a very effective deterrent to weeds.



Vegetable Gardens

- Pick off infested leaves by hand to control insects such as the *Colorado potato beetle*.
- Ladybugs and Lacewings prey heavily on *aphids*; putting these insects on infested plants is a useful means of control. Remember, insecticides will also eliminate these natural predators. Removing heavily infested twigs is also a quick and easy method of control that usually does no permanent harm to the plant.
- To reduce cutworm infestations, remove vegetable trash and weeds from the garden in August. These worms frequently move from one plant to the next, feeding on the fresh roots. Damage to an entire crop of plants can be reduced by planting shorter rows with worm-resistant plants between rows. Also coffee tins or plastic pails with the bottoms removed can be used as shields for plant roots. Sink the tin two thirds of its height into the soil and transplant one seedling into each pot.
- Removing and destroying all crop debris immediately after harvest will discourage *maggot* infestations. Onions are particularly prone to damage when planted close together in rows because the maggots travel from one to another. Planting shorter rows, thinning the rows, and separating them may reduce the damage.
- To control *slugs* remove all vegetable trash and other food sources from the garden area and place boards between rows. Destroy the slugs that gather under the boards each morning.
- Don't plant in newly cultivated soil; leave the area dormant for one growing season.
- Place tar-covered paper around the base of cabbage plants to prevent *cabbage flies* from laying their eggs.
- Rotate crops each year to prevent the soil from being depleted of nutrients and to control soil-borne diseases.
- Regular hoeing will control weeds and keep plants healthy and more resistant to insects.

House Plants

- Use yellow sticky traps to catch incoming winged *aphids* and screen windows and vents to exclude them. Prune off and

discard heavily infested growth, and spray the plant with soap solution.

- The *cyclamen mite* thrives in areas of high humidity and moving the infested plant to a dry, cool area should cure the problem.
- *Fungus gnats* like wet soil high in organic matter. Remove rotting leaves and allow the soil to thoroughly dry between waterings. If not, try soil drenching with a soap solution. Should this not work then wash off the roots and repot in sterilized soil.
- Foliage heavily infested with *mealy bugs* should be removed and the plants misted frequently. Remove large mealy bugs before they lay their white fluffy egg masses. Drench the soil with a soap solution, and if the infestation persists, clean the roots and repot in sterilized soil.
- *Millipedes* can be controlled by cleaning plant roots and repotting in sterilized potting soil. In greenhouses, keep benches and floors clean.
- Prune off foliage heavily infested with *scales* and hand pick large scales. Mist foliage frequently with a soap solution until the problem clears up.

Companion Planting Really Works!

Vegetables and flowers have different odors and root secretions that are believed to affect the activity of insects and the growth of nearby plants.

- Plant marigolds and other members of the chrysanthemum family throughout the garden to protect tomatoes, beans, and other plants from a variety of insects.
- Sow aromatic plants at intervals throughout the garden to ward off pests. Chives, dill, nasturtiums, geraniums, thyme, basil, celery, mint, garlic, and onions are examples of aromatic plants often grown for their own value anyway.
- Basil is said to keep tomatoes free from infestation, and savory to protect beans. Onions or garlic sowed next to carrots will foil the *carrot fly*.
- Plant horseradish at the corners of a potato patch, and plant beans near potatoes to repel the *Colorado potato beetle*.

Finally

Remember that pesticides only relieve symptoms. . . they are not a cure-all. Insects will never be eradicated. Instead, why not tolerate minor flaws and blemishes on fruit and vegetation? Think of your yard and garden as a small portion of nature in which pests too have their place. Oftentimes nature provides its own pest control in the form of birds or other insects that feed on the species we consider nuisances. But if you want to give nature a helping hand, consider the alternatives before reaching for a spray can.

For further information contact the Environmental Protection Service, Environment Canada, Twin Atria #2, 2nd Floor 4999-98 Avenue, Edmonton, Alberta T6B 2X3 Phone: (403) 468-8075

Defining Organic: Cross Canada Consensus

by Tomas Nimmo

Arriving at consensus sometimes takes years but Canada's twenty major organic farm groups did it recently in only two days.

The November 15th and 16th Toronto meeting of the 'Canadian Organic Foods Coalition' united these groups under one roof to discuss, debate, and ultimately to approve an organic food definition for Canada.

This process began in June, 1987 when a BC organic fruit producers association made a submission to Consumer and Corporate Affairs (CCA), the federal government consumer-protection agency. CCA's negative organic definition at that time was on the books to discourage growers from claiming food to be organic. But CCA was aware of the ground swell

of interest from both consumer and farmer and so agreed to accept a definition from Canada's organic grower associations. Sixteen months later this historic meeting finally took place. Not only were the major organic groups like COG, Organic Crop Improvement Association, and Organic Food Production Association of North America represented, but for the first time environmental groups like Pollution Probe Foundation, Canadian Environmental Network and Ontario Public Interest Research Group, were present as observers and contributors.

To summarize, after much positioning the thirty delegates and observers agreed to a one-page comprehensive definition of organic food for Canada.

Canadian Definition of Organic Food

The description organic, organically grown, organically raised, organically produced, and certified organic, or other variations of, or using, the word organic shall apply to those food and health products which meet the following definition, as elaborated and specified by independent organic certification agencies:

Organic farming is a system of farm design and management practices that seeks to create ecosystems which achieve sustainable productivity through a diverse mix of mutually dependent life forms.

Management practices which achieve this sustainable productivity, and which provide weed and pest control and maintain soil productivity and tilth, include recycling plant and animal residues, crop selection and rotation, water management, and tillage and cultivation. Soil fertility is maintained and enhanced by a system which optimizes soil biological activity as a means to provide nutrients for plant and animal life and conserve soil resources.

In keeping with soil health and environmental considerations, pest and disease management is attained by encouraging a balanced host/predator relationship through augmentation of beneficial insect populations, biological and cultural controls, and mechanical removal of pests and affected plant parts.

Organic livestock is raised under conditions of minimal stress including reasonable freedom of movement, lack of crowding, and access to sunshine and fresh air. All grains, forages and protein supplement fed to the animals must be organically grown. Animal health must be maintained without the use of antibiotics, synthetic growth promoters or

similar drugs. Slaughtering and processing must be done under humane and sanitary conditions.

Organic foods and their ingredients are processed, packaged, transported, and stored to retain maximum nutritional value. All packaging must be non-reactive with the food contents or health products.

If a production unit has been farmed conventionally, a minimum three-year transition period is required to achieve organic status. During the transition period from conventional to organic farming the production unit must adhere to strict organic practices.

All enterprises selling organic food and health products must maintain an accurate and comprehensive audit trail of production and handling. Records must be maintained for a period of three years for all products that are sold as organically produced. This audit trail is further strengthened by independent third party verification of growing, processing, packaging, transportation, storage, and retailing procedures.

Organic food production systems prohibit the use of highly-soluble or synthetically compounded mineral fertilizers, synthetically compounded pesticides, fungicides, herbicides, plant and animal growth regulators, antibiotics, hormones, preservatives, colouring or other artificial additives, ionizing irradiation, and recombinant genetic manipulation of plants or animals.

Please refer to independent organic certification agencies for specific practices and standards.

For more information contact OFPANA, c/o Ecological Agriculture Project, Macdonald College, Ste. Anne de Bellevue, Quebec.

Nominations Please

The Annual General Meeting for the Human Ecology Foundation of Canada and the Allergy and Environmental Health Association of Ontario will be held together this year in Cambridge (Preston) Ontario. The Annual General Meeting is the opportunity for all members to participate directly in the decision of the National and Provincial Organization.

It is at the AGM that you the members nominate and elect your representatives on the Board of Directors. Currently, the Board consists of Branch presidents and four members at large. It is these members at large that you must elect. If you have any nominations don't forget to bring them to the AGM.

Please participate in the decision of the organization. If you cannot attend either the National or Provincial organization make sure that you are represented by a proxy. You will find a proxy form in this *Quarterly* on the next page.

Insurance Information

H.E.F. Canada, AEHAO and the Canadian Society of Clinical Ecology and Environmental Medicine has established an Insurance Committee. The committee is requesting input from anyone with insurance information or concerns and environmental hypersensitivity. Please forward written information to: Insurance Committee, Barbara Mowat c/o 10 George St. N. Cambridge, Ontario N1S 2M7.

ALTERNATIVES

THREE UPCOMING ISSUES FOCUS ON SUSTAINABLE DEVELOPMENT

Sustainability and Equity: Women in Development in Canada
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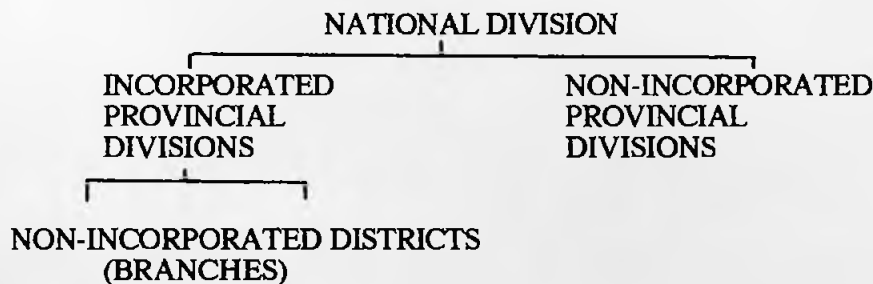
EXPLANATORY NOTES TO THE PROPOSED BY-LAW

The proposed By-law for H.E.F. and the Provincial divisions have been included in this edition of the Quarterly for your review.

The By-Law is laid out as follows:

ARTICLE 1 through ARTICLE 22 and ARTICLE 48 refer to H.E.F.
ARTICLE 23 refers to non-incorporated Provincial Divisions such as PEI
ARTICLE 24 through to ARTICLE 47 refer to incorporated Provincial Divisions such as Ontario. Included in this section is ARTICLE 46 which refers to Districts (Branches) of incorporated Provincial Divisions. For example ARTICLE 46 would be the legal guidelines for the Ottawa and Toronto Branches.

Incorporating all divisions under one By-law was recommended so that one division could not change its status without informing the others. The overall structure of the organization is as follows:



This hierarchical structure is very important for the smooth operation of the organization.

In addition, you will note that the name on the top of the By-law is the Allergy & Environmental Health Association of Canada. It is generally felt that the proposed name, although a mouth full, better describes the organizations mandate.

Please review the By-law thoroughly and if you have any concerns or need clarification call you local president or the AEHAO office at (519) 740-6979. The proposed By-law will be voted on at the Annual General Meeting of April 29th, 1989.

The next step upon approval of the By-law will be the development of a Policy and Procedural manual. The organizational committee responsible for developing this manual would appreciate your input. Please submit your concerns and/or suggestions in writing to the AEHAO office at 10 George Street N. Cambridge, Ontario N1S 2M7. If you find a number of people from your branch would like to have input suggest to your president that you form a committee where you may discuss ideas and formulate suggestions as a group. Don't forget the committee will need a volunteer chairperson to organize it and report to the branch executive.

ALLERGY ENVIRONMENTAL HEALTH ASSOCIATION OF CANADA

BY-LAW NO. 1

BE IT ENACTED a By-law relating generally to the transactions of the business and affairs of **ALLERGY ENVIRONMENTAL HEALTH ASSOCIATION OF CANADA** hereinafter called the "National Association" as follows:

ARTICLE 1 SEAL

The seal, an impression whereof is stamped in the margin hereof, shall be the corporate seal of the National Association.

ARTICLE 2 INTERPRETATION

2.01 Definitions - In this By-law and all other By-laws and special resolutions of the National Association, unless the context otherwise requires:

"Province" shall refer to both Provinces and Territories in the Dominion of Canada.

"Provincial Association" shall refer to the incorporated Provincial Divisions of the National Association.

"Provincial Branch" shall refer to the **not** incorporated Provincial Divisions of the National Association.

"District " shall refer to those municipal or regional or district divisions of a Provincial Association.

2.02 Reference - In this By-law of the National Association, when the Article pertaining to the Provincial Association, Provincial Branch and /or District makes reference to any article within this document, the article to which reference was made shall read Provincial Association, or Provincial Branch, or District depending upon point of reference. When the Articles pertaining to the Provincial Association makes reference to an article of the National Association, the Article of the National Association shall also read Provincial Association. Likewise when the Article of the District makes reference to the Articles pertaining to the Provincial Branch, the Articles of the Provincial Branch shall also read District .

ARTICLE 3 MEMBERSHIP

3.01 Members - The members of the National Association shall be those persons who are from time to time enrolled, or elected members of one of the following classes, as designated in the following clauses:

- a) **PROVINCIAL MEMBERS:** Provincial members are those persons who apply and are accepted for membership through a Provincial Association or a Provincial Branch. The member shall be entitled to the services of their respective Provincial Association/Branch and to a vote at the Annual General Meeting of the National Association.
- b) **DISTRICT MEMBERS:** District members are those persons who apply and are accepted for membership through a District. The members shall be entitled to the services of their respective District and to a vote at the Annual General Meeting of the National Association.
- c) **OTHER PROVINCIAL MEMBERS:** Other Provincial members are those persons whose application was not processed through a Provincial

Association/Branch but are processed through the National Association. This individual shall be entitled to a vote at the Annual General Meeting of the National Association.

- d) **MEMBERS AT LARGE:** Members at large are members of the Association and are nominated and successfully elected by the general membership to serve on the National Association's Board of Directors. Members at large are eligible to vote at the Annual General Meeting of the National Association and at the Meeting of the Board of Directors.
- e) **FRIENDS OF THE ASSOCIATION:** Friends of the Association are those individuals or organizations who have contributed at least one thousand dollars to the National Association. Such friends of the Association shall be recognized for their contribution by the National Association throughout the fiscal year in which it was donated, with the express knowledge and permission of the individual or organization.
- e) **HONOURARY MEMBERS:** Honourary members are those individuals the National Association may wish to recognize as outstanding contributors to the Principles and Objectives of the National Association. Such individuals shall be deemed honourary members at the discretion of the Board of Directors, and shall be entitled to a vote at the Annual General Meeting.

3.02 Membership Fees - Provincial, District and Other Provincial members are subject to an annual fee that will be determined by the Board of Directors of the National Association. Such fee shall be due on January 31st of each year. All memberships for the previous year will expire on the 31st day of January regardless of when dues or fees were paid for that year. The members at large and Honourary members are not subject to a membership fee. Friends of the Association will not be subject to an additional fee in the year in which the donation was made.

3.03 Membership List - The National Association shall maintain a list of names and most recent addresses of its members. The membership list is confidential and is not to be used for any reason other than for the purposes of the National Association. Any exception to this rule must be brought before the National Association's Board of Directors for exception approval. Any member using the membership list for their own gain will automatically be subject to a review for termination of membership, and legal action by the National Association's Board of Directors. Any non-member, corporation, or other business using the membership list for their own gain will be subject to immediate review by the Board of Directors and subject to legal action. The National membership list shall be the official list for the National Association's purposes and the Provincial Association's list shall be the official list for the purposes of the the Provincial Association .

3.04 Fee Waiver - The annual fee may be waived for a member in accordance with the policy set, at the discretion of the National Association's Board of Directors. The decision of the Board of Directors is final.

3.05 Resignation of Membership - Any member may withdraw from membership by submitting a written resignation to his or her respective Provincial Corporate Secretary or to the National Corporate Secretary. The resignation shall be effective upon receipt of the resignation and its acceptance by the Board of Directors. In case of resignation, member's fees are non-refundable. A resignation from membership is deemed to be a resignation from every class of membership.

3.06 Termination of Membership - The membership in the National Association is not transferable and ceases at the end of the period of the membership or when the individual ceases to be a member by resignation or otherwise in accordance with the By-

law of the National Association. Termination of membership is deemed to be a resignation from every class of membership.

3.07 Right of Participation - No person shall be denied the services of the National Association or excluded from membership and participation because of race, age, colour, sex, creed, religion, physical disability or national origin, and discrimination of any kind in these regards is expressly prohibited. Right of participation will also comply with the Human Rights Code of the National and Provincial Governments.

3.08 Removal of Membership - The Board of Directors of the National Association may terminate the membership of any member not acting in the best interest of the National Association by a majority vote of two-thirds of the elected Directors at a meeting of the Board of Directors duly called for that purpose. The member shall be notified of the meetings at which removal of membership is to be considered and shall be entitled to attend or be represented at such meetings. The decision is subject to written appeal to a General Meeting of the National Association. The appeal must be submitted not more than eight weeks after the effective date of termination of the membership.

3.09 Representation - No member shall make any representation on behalf of the National Association unless expressly authorized to do so by the Publicity Committee or Executive Committee or Board of Directors.

ARTICLE 4
BOARD OF DIRECTORS
see items 3, 4, 8 and 9 of old By-law

4.01 Size of Board - The National Association shall have a Board of Directors of not more than eighteen persons with a maximum of 10 Provincial Representatives.

4.02 Composition of Board - The Board of Directors shall consist of the following:

- a) Provincial Representatives whereby each Provincial Association/Branch is entitled to one Representative per 500 members or part thereof.
- b) Four members or members at large, who are duly nominated and elected at the Annual General Meeting of the National Association.
- c) Two medical advisors, both of whom cannot be of the same medical specialty as determined by the Board of Directors from time to time, and who are duly nominated and elected at the Annual General Meeting of the National Association, who shall have full voting privileges but whose absence from the Board of Directors meetings shall not forfeit quorum.
- d) Last immediately available Past-President as determined by the nominating committee; and,
- e) Dr. Maclellan, as the only remaining founding Director shall remain as a Director so long as he chooses. His absence at meetings shall not forfeit quorum.

4.03 Provincial Representatives - The Provincial Representative shall be elected at the Annual General Meeting of his or her respective Province. The Provincial Representative will be a Board member of the National Association and shall have the additional responsibility of acting as a liaison between the National Association and the Provincial Association/Branch and shall be an ex officio member of the Provincial Association's Board of Directors or the Provincial Branch's Board of Management.

4.04 Tenure - One term on the Board of Directors of the National Association is defined as two years. Each member of the Board of Directors may serve for two terms but shall not serve for more than two successive terms. However, if no officer is elected, the incumbent Director will continue in office until a successor is elected or appointed. Also, any such individual shall be eligible for re-appointment or re-election after an absence of one year.

4.05 Interim Vacancy(ies) - Vacancy(ies) on the Board of Directors, however caused, may be filled by appointment from the qualified members of the National Association by the Board of Directors so long as the remaining Board of Directors constitutes a quorum

Where there is not a quorum of remaining Directors, the remaining Directors shall forthwith call a general meeting of the members to fill the vacancy(ies).

If the number of Directors' positions has increased between the terms, a vacancy(ies) to the number of the increase shall be deemed to have occurred, which may be filled in the manner stated above provided determined by the presence of quorum.

The person or persons so appointed shall fulfill the term of office of the person they are replacing.

4.06 Resignation of Directors - Any director may withdraw from the Board of Directors by submitting a written resignation to his or her respective Corporate Secretary or to the President. The resignation shall be effective upon receipt and acceptance of the resignation. A director's resignation from the general membership shall terminate that director's tenure with the Board of the National Association.

4.07 Removal of Directors - Any director or directors may, at any time, be removed from office and another or others appointed in his or her stead by resolution passed at a special meeting of members called for the purpose and passed by the votes of the members present or represented by proxy thereat having voting rights; the person or persons so appointed will fulfill the term of office of the person they are replacing.

4.08 Election of Directors - The four members or members at large and the two medical advisors shall be elected at an Annual General Meeting from nominations. The National Association shall ensure as far as possible in any one year, the expiration of terms of office does not exceed one half of the Directors of the Corporation.

4.09 Power of the Board of Directors - The Board of Directors of the National Association will administer the affairs of the National Association in all things that make or cause to be made for the National Association in its name any kind of contract which the National Association may lawfully enter into and save as hereinafter provided, and generally may exercise all such other powers and do all such other acts and things as the National Association is, by its charter or otherwise, authorized to exercise and do.

Without in any way derogating from the foregoing, the directors are expressly empowered from time to time to purchase, lease, or otherwise acquire, alienate, sell, exchange or otherwise dispose of shares, stocks, rights, warrants, options and other securities, lands, buildings and other property moveable or immovable, real or personal, or any right or interest owned therein by the National Association for such consideration and upon such terms and conditions as they may deem advisable.

4.10 Duties of the Board of Directors - The Board of Directors shall be responsible for the development and implementation of the goals and policies of the National Association. Each Director of the Board shall be represented on at least one committee of the National Association. Additional duties of the Board of Directors, as determined at the discretion of the Board of Directors, shall be performed.

4.11 Remuneration of the Board of Directors - Directors of the National Association shall serve without remuneration, and no director shall directly or indirectly receive any profit from the position as such; provided that a director may receive reasonable expenses incurred in the performances of the duties as set out in the Policy and Procedural manual of the National Association.

4.12 Conflict Disclosures - A Board member shall disclose, to the National Association's Board of Directors, any financial or other interest that they have in any matter before the National Association and shall not take part in the deliberations of the Board of Directors or vote on that matter. Where the Board member or the Board of Directors is not sure that the Board member is in conflict of interest concerning a matter before the Board of Directors, the Board of Directors shall decide by vote whether the Board member is in conflict and the Board member in question shall not take part in that vote. When the Board of Directors decides that a Board member is in conflict of interest with a matter before the Board, the Board member in question shall be disqualified from taking part in deliberations and from voting under this section and shall be considered not to be present at the meeting for the purposes of determining quorum and shall be excluded from the meeting during the deliberations.

ARTICLE 5
BOARD MEETINGS
see items 5, 6 and 7 of old By-law

5.01 Quorum - A majority of the Board of Directors shall constitute a quorum for the transaction of business.

5.02 Location - Except as otherwise required by law, the Board may hold its meetings at such place or places as it may from time to time determine.

5.03 Notice Of Meeting - All notices of meetings shall include the date, time, place and business to be transacted at that meeting. Directors' meetings may be called by the President or Vice-President or by the Corporate Secretary on direction of the President or Vice-President or by the Corporate Secretary on direction in writing of four directors. The Board must meet at least four times during the year. Notice of such meetings shall be mailed to each director not less than 21 calendar days before the meeting is to take place. A Statutory Declaration of the Corporate Secretary or President that notice has been given pursuant to this By-law shall be sufficient and conclusive evidence of the giving of such notice. The Board may appoint a day or days in any month or months for regular meetings at an hour to be named and of such regular meeting no notice need be sent. A Directors' meeting may be held without notice immediately following the general meeting of the members which follows the annual meeting of all the members of the National Association. The Directors may consider or transact any business either special or general at any meeting of the Board.

5.04 Errors in Notice of Meeting - No error or omission in giving such notice of a meeting of the Board of Directors shall invalidate such meeting or invalidate or make void any proceedings taken or had at such meeting, and any director may at any time waive notice of any such meeting and may ratify and approve of any or all proceedings taken or had thereat.

5.05 Voting at a Board of Directors Meeting - Motions arising at any meeting of the Board of Directors shall be decided by a majority of votes. In the case of an equality of votes, the motion shall be considered defeated. All votes at any such meetings shall be

taken by secret ballot if so demanded by any director present, but if no demand be made, the vote shall be taken in the usual way by assent or dissent. A declaration by the Chairperson that a resolution has been carried and an entry to that effect in the minutes shall be admissible in evidence as prima facie proof of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution. In the absence of the President, his or her duties may be performed by the Vice-President or such other director as the Board may from time to time appoint for the purpose.

ARTICLE 6
EXECUTIVE OFFICERS OF THE CORPORATION
see items 10, 11, 12 and 13 of old By-law

6.01 Executive Officers of the Corporation - There shall be four Executive officers of the National Association, a President, Vice-President, Treasurer, and Corporate Secretary. These four positions shall constitute part of the Executive Committee of the National Association.

6.02 Election of the Executive Officers - Following the election of the Board of Directors, the Executive Officers shall be elected at the Annual General Meeting. The Executive Officers shall be elected from the Board of Directors by the General Membership. The President and the Corporate Secretary shall be elected on odd numbered years and the Vice-President and Treasurer shall be elected on even numbered years. The President, Corporate Secretary, Treasurer, and Vice-President shall have terms of two years. Every Executive Officer may only serve for one term, however, after a one year absence the individual may be re-elected to serve an additional term.

6.03 Duties of the Officers

Duties of the President - The president shall, when present, preside at all meetings of the Board of Directors and shall preside at all meetings of the members of the National Association. The President shall also be charged with the supervision of the affairs and operations of the National Association. The President, with the Corporate Secretary or other officer appointed by the Board, shall sign all By-laws. The President shall act as an ex officio member to all standing committees, with the exception of the Personnel Committee where there may be a conflict of interest.

Duties of the Vice President - The Vice President shall, in the absence or inability of the President, be charged with the duties and powers of the President. The Vice-President shall perform other duties as determined from time to time by the Board of Directors.

Duties of the Corporate Secretary - The Corporate Secretary shall be the clerk of the Board of Directors. The Corporate Secretary shall attend all meetings of the Board of Directors and shall ensure that all facts and minutes of all proceedings, including the Annual General Meeting, are recorded in the official minute book. The Corporate Secretary shall be the custodian of the seal of the National Association and all books, papers, records, correspondence, contracts and other documents belonging to the National Association which shall be delivered up only when authorized by resolution of the Board of Directors to do so and to such person or persons as may be named in the resolution. The Corporate Secretary shall perform other such duties as may from time to time be determined by the Board of Directors.

Duties of the Treasurer - The Treasurer shall ensure that full and accurate amounts of all receipts and disbursements of the National Association are kept in proper books of account, and shall deposit all money or other valuable effects in the name and to the credit

of the National Association in such bank or banks covered by the Canadian Deposit Insurance Corporation as may from time to time be designated by the Board of Directors. The funds of the National Association shall be disbursed under the direction of the Board of Directors, taking proper vouchers therefor and an account of all transactions of the Treasurer and of the financial position of the National Association shall be rendered to the Board of Directors at the regular meetings thereof or whenever required. The Treasurer shall perform other such duties as may from time to time be determined by the Board of Directors.

ARTICLE 7
EXECUTIVE COMMITTEE
see item 10 of old By-law

7.01 Composition - The Executive Committee shall consist, at least, of the Executive Officers, who are the President, Vice-President, Treasurer and Corporate Secretary. The Board of Directors may appoint additional Executive Committee members from time to time to a maximum of three. The President shall be the chairperson of the Executive Committee.

7.02 Powers of the Executive Committee - The Executive Committee shall have and exercise all the powers and duties of the Board of Directors between meetings thereof provided that:

- a) the Executive Committee shall take no action inconsistent with any policy established or approved by the Board of Directors, and,
- b) at each meeting of the Board of Directors the committee shall report on all its actions since its previous report.

7.03 Meetings - The Executive Committee shall hold regular meetings at a time and place fixed by the Executive Committee.

7.04 Quorum - A majority of the Executive Committee shall constitute a quorum for the transaction of business.

ARTICLE 8
STANDING COMMITTEES
see item 10 of old By-law

8.01 Number of Committees - The Board of Directors may appoint such other committees of the directors or members for such purposes as may be required.

8.02 Mandate of Committees - The Board of Directors, from time to time, may define the function and mandate of committees, lay down rules, quorum requirements, voting and procedure for their guidance, instruct as to nature and time of reports to be made and generally supervise their operation.

8.03 Size of Committees - The Board of Directors shall settle the numbers to be appointed to the several committees and the chairperson of each committee at the time of appointment.

8.04 Committee Composition - Committees of the National Association may consist of individuals who are in no way associated with the National Association as long as the majority of committee members are members of the National Association and the committee is chaired by a Director of the Board.

All acts done by any meeting of the Board of Directors or of a committee of directors, or by any person acting as a director, notwithstanding that it is afterwards discovered that there

was some defect in the appointment of any such director or person so acting, or that they, or any of them, were disqualified, shall be as valid as if every person had been duly appointed and was qualified to be a director.

8.05 Finance Committee

i)Committee Composition - The Finance Committee will be chaired by the Treasurer of the National Association and shall have no less than three members.

ii)Duties of the Finance Committee - To study and make recommendations to the Board on the budget of the National Association, the appropriation and spending of funds, special objectives, and financial participation in social and welfare projects.

8.06 Public Affairs Committee

i)Committee Composition - The committee will be chaired by a member of the National Associations Board of Directors and shall have a minimum of three members.

ii)Duties of the Public Affairs Committee - To study, make recommendations and manage the public affairs for the National Association and to designate persons authorized to officially represent the National Association. The Committee shall also make representations to Government and Non-Government organizations, media relations and co-ordinate activities with other non-profit organizations. This shall include both National and International relations.

8.07 Membership Services Committee

i)Committee Composition - The committee will be chaired by a member of the National Association's Board of Directors and shall have a minimum of three members.

ii)Duties of the Membership Services Committee - To establish the best means of providing membership services for the National Association.

8.08 Nominating Committee

i)Size and Composition - The Nominating Committee shall be elected by the Board of Directors. The Nominating Committee shall consist of not less than three (3) and not more than nine (9) members, and two (2) of the members must be from the Executive Committee. The Nominating Committee shall be established each year, three (3) months prior to the Annual General Meeting of the National Association.

ii)Duties of the Nominating Committee - The duties of the nominating committee are as follows:

- a) To notify members of the National Association in writing or by telephone requesting nominees for election to the Board of Directors and Executive Committee.
- b) To prepare a list of nominees for election to the Board of Directors and Executive Committee and to distribute the list to all members of the National Association at least fourteen (14) calendar days prior to the Annual General meeting of the National Association.
- c) To make suggestions to the Board of Directors of candidates suitable for appointment to interim vacancies and committee appointments.
- d) To ensure all nominees are willing to accept upon successful election and are informed of the duties and responsibilities of office.
- e) To ensure that persons so elected fulfill the Duties of the position.

iii)Voting of the Nominating Committee - A Nominating Committee member must be a member in good standing according to Article 3.01 of the National Associations By-law. A Nominating Committee member may not cast a vote when the vote is regarding

their own office held, or position they are being nominated to fill. This shall avoid a conflict of interest. They may vote on any other nomination not for the purpose of their own gain or interest.

8.09 Personnel Committee

i)Committee Composition - The Personnel Committee will consist of the President or Vice-President, one Board member and one other person appointed by the Executive Committee in consultation with the Executive Director.

ii)Duties of the Personnel Committee - The Personnel Committee will be responsible for ensuring that the following is accomplished:

- a) Hiring, de-hiring, supervising, and evaluating all staff, and,
- b) Developing and implementing all personnel policies

8.10 Fundraising Committee

i)Committee Composition - The Fundraising Committee will be chaired by a member of the National Association's Board of Directors and shall have no less than three members.

ii)Duties of Fundraising Committee - The Fundraising Committee will develop fundraising plans.

8.11 Organization Committee

i) Committee Composition - The Organization Committee will be chaired by a member of the National Association's Board of Directors and shall have no less than three members.

ii) Duties of the Organization Committee - The Duties of the Organization Committee will be determined from time to time as necessary on an ad hoc basis. The Priorities of the Committee are:

- a) By-laws
- b) Development and implementation of policy
- c) Inter-divisional relationships
- d) Other items of an organizational nature

ARTICLE 9 ANNUAL GENERAL MEETING AND OTHER GENERAL MEETINGS OF THE MEMBERS see items 20, 21, 22, 23 and 24 of old By-law

9.01 Time of Annual Meeting - The Annual Meeting of the National Association shall be convened in the month of May or in such other month as the Board of Directors in their sole discretion may elect in each year for the election of the Directors, the review of the financial situation and auditor's report and other ordinary business of an annual meeting. At each Annual General Meeting, the date of the Annual General Meeting for the following year shall be determined so far as is possible.

The Board of Directors may, whenever they think fit, and they shall upon a requisition made in writing by any twenty-five or more members, convene a general meeting.

The requisition shall express the object of the meeting proposed to be called, and shall be left at the office of the National Association. Upon receipt of such requisition, the Directors shall forthwith convene a general meeting and if they do not convene the same

within twenty-one calendar days of the receipt of the requisition, the aforesaid requisitioners may themselves convene a meeting.

The National Association in general meeting, by a resolution of which notice has been given in the notice calling this meeting, may remove any director before the expiration of his or her period of office, and may, by resolution, appoint another person in her or his stead, and the person so appointed shall hold office during such time as the director in whose place he or she was appointed would have held the same, if she or he had not been removed.

9.02 Location - The Annual General Meeting of the National Association shall be held at such place or places as may be determined from time to time.

9.03 Quorum - A quorum for the transaction of business at any meeting of all members shall consist of not less than twenty members present in person or 1/3 of the membership, whichever is less.

9.04 Adjournment of Meeting - Any meetings of the National Association or the Board of Directors or the members may be adjourned to any time and from time to time, and such business may be transacted at such adjourned meeting as might have been transacted at the original meeting from which such adjournment took place. No notice shall be required of any such adjournment. Such adjournment may be made notwithstanding that no quorum is present.

If within one hour from the time appointed for the meeting a quorum of twenty members is not present, the meeting, if convened upon the requisition of the members, shall be dissolved, and in any other case it shall stand adjourned to the same day in the following week, at the same hour and place, and if at such adjourned sine die.

The Chairperson may, with the consent of the meeting, adjourn it from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

If at any meeting at which an election of directors ought to take place the places of the vacating directors are not filled, the meeting shall stand adjourned until the same day in the next week, at the same hour and place, and if at such adjourned meeting the places of the vacating directors are not filled, the vacating directors, or such of them as have not had their places filled, shall continue in office until the annual meeting in the next year, and so on from time to time until their places are filled.

9.05 Notice Of meeting - All notices unless otherwise stated shall be as stated in Article 20.

9.06 Voting of Members - Each member of and in good standing with the National Association shall be entitled to one vote by person or by proxy. In the event of vote by proxy, refer to paragraph 9.07 Proxy Voting Form. Every motion shall be decided in the first instance by a show of hands unless a poll be demanded by any member. Upon a show of hands, every member having voting rights shall have one vote and unless a poll be demanded, a declaration by the Chairperson that a resolution has been carried or not carried, and an entry to that effect in the minutes of the National Association shall be admissible in evidence as prima facie proof of the fact without proof of the number or proportion of the votes accorded in favour of or against such resolution. The demand for a poll may be withdrawn, but if a poll be demanded and not withdrawn, the question shall be decided by a majority of votes given by the members present in person or by proxy and

such poll shall be taken in such manner as the Chairperson shall direct and the result of such poll shall be deemed the decision of the National Association in general meeting upon the matter in question. In case of an equality of votes at any general meeting, whether upon a show of hands or at a poll, the motion shall be considered defeated.

9.07 Proxy Voting Form - Any member of the National Association who is entitled to a vote at a meeting of the general membership may vote by means of a proxy. The member may vote by proxy using the Proxy Voting Form and appointing another person as proxy. The person the member appoints as proxy need not be a member, but before voting shall produce and deposit with the Corporate Secretary sufficient appointment in writing from her or his constituent or constituents. The Proxy shall be valid for a period not exceeding eleven months from the date contained on the Proxy Voting Form. The form of proxy to be used shall be as follows:

The undersigned, _____, a member in good standing with The Allergy and Environmental Health Association of Canada hereby appoints _____ as proxy with power of substitution, to attend and to vote for me at _____ meeting, to be held on _____ 19____, or any adjournment thereof, Dated this _____ day of _____ 19____.

Witness

Signature of Member

Lack of conformity with the Proxy Voting Form shall not invalidate the Proxy so long as the information provided is the same. The National Association's Board of Directors decision shall be final regarding validity of Proxy votes.

ARTICLE 10

STAFF

see item 14 of old By-law

10.01 General Policy - The National Association shall employ such staff as may be required from time to time and shall determine the remuneration to be paid to such staff.

10.02 Executive Director - The Executive Director shall be the lead staff person and shall act as an ex officio member to all committees excluding the Personnel Committee.

ARTICLE 11

FISCAL YEAR

see item 25 of old By-law

The fiscal year of the National Association shall be from January 1st to December 31st in each year.

ARTICLE 12

AUDITORS

see item 27 of old By-law

The National Association at the Annual General Meeting shall appoint a chartered accountant to perform an audit and/or to examine and verify all vouchers, accounts, receipts, expenditures, records and financial transactions of or affecting the Corporation for that fiscal year and to prepare a report thereof for submission by the Board of Directors to the next annual general meeting of the National Association.

ARTICLE 13
LEGAL COUNSEL
not in old By-law

The Board of Directors of the National Association shall appoint a legal counsel to perform all legal requirements of the National Association as may be required from time to time. The legal counsel appointed shall be ratified at each Annual General Meeting of the National Association.

ARTICLE 14
FIDELITY BOND
see item 15 of old By-law

The Treasurer and such other officers or employees as the Board may designate shall secure from a guaranty company a bond of fidelity of an amount approved by the Board, and the National Association shall pay the expenses of any fidelity bond secured.

ARTICLE 15
INDEMNIFICATION OF DIRECTORS

Every Director of the National Association and his or her heirs, executors, administrators and other legal personal representatives shall from time to time be indemnified and saved harmless by the National Association from and against any liability and all costs, charges and expenses that he or she sustains or incurs in respect of any action, suit, or proceedings that is proposed or commenced against him or her in respect of the execution of the duties of his or her office; and, all other costs, charges and expenses that he or she sustains or incurs in respect of the affairs of the National Association, except such costs, charges or expenses as are occasioned by his or her own willful neglect or default.

ARTICLE 16
EXECUTION OF DOCUMENTS
see item 16 of old By-law

Deeds, transfers, licences, contracts and engagements on behalf of the National Association shall be signed by either the President or Vice-President and by the Corporate Secretary and the Corporate Secretary shall affix the seal of the National Association to such instruments as require the same.

Contracts in the ordinary course of the National Association's operations may be entered into on behalf of the National Association by any one of the President, Vice-President, Treasurer or by any person authorized by the Board of Directors.

The President or Vice-President, the Directors, Corporate Secretary or Treasurer, or any one of them, or any person or persons from time to time designated by the Board of Directors, may transfer any and all shares, bonds or other securities from time to time standing in the name of the National Association in its individual or any other capacity or as Trustee or otherwise and may accept in the name of and on behalf of the National Association transfers of shares, bonds or other securities from time to time transferred to the National Association and may affix the corporate seal to any such transfers or acceptances of transfers and may make, execute and deliver, under the corporate seal, any and all instruments in writing necessary or proper for such purposes, including the appointment of an attorney or attorneys to make or accept transfers of shares, bonds or other securities on the books of any company or corporation.

Notwithstanding any provisions to the contrary contained in the By-law of the National Association, the Board of Directors may at any time by resolution direct the manner in which and the person or persons by whom any particular instrument, contract or obligations of the National Association may or shall be executed.

ARTICLE 17
BOOKS AND RECORDS
see item 17 of old By-law

The directors shall see that all necessary books and records of the National Association required by the By-law of the National Association or by any applicable statute or law are regularly and properly kept.

ARTICLE 18
CHEQUES ETC.
see item 28 of old By-law

All cheques, bills of exchange or other orders for the payment of money, notes or other evidences of indebtedness, issued in the name of the National Association, shall be signed by two officers or agents of the National Association and in such manner as shall from time to time be determined by resolution of the Board of Directors, and any one of such officers or agents may alone endorse notes and cheques for deposit with the National Association's bankers of the credit of the National Association, or the same may be endorsed "for deposit" with the bankers to the National Association by using the National Association's rubber stamp for the purpose. Any two such officers or agents so appointed may arrange, settle, balance and certify all books and accounts between the National Association and the National Association's bankers and may receive all paid cheques and vouchers and sign all the Bank's form or settlement of balances and release or verification slips.

ARTICLE 19
DEPOSITS OF SECURITIES FOR SAFEKEEPING
see item 29 of old By-law

The securities of the National Association shall be deposited for safekeeping with one or more bankers, trust companies or other financial institutions, covered by Canada Deposit Insurance Corporation, to be selected by the Board of Directors. Any and all securities so deposited may be withdrawn from time to time only upon the written order of the National Association signed by such officer or officers, agent or agents of the National Association, and in such manner as shall from time to time be determined by resolution of the Board of Directors, and such authority may be general or confirmed to specific instances. The institutions which may be so selected as custodians of the Board of Directors shall be fully protected in acting in accordance with the directions of the Board of Directors and shall in no event be liable for the due application of the securities so withdrawn from deposit or the proceeds thereof.

ARTICLE 20
NOTICES
see item 30 of old By-law

At least 21 calendar days notice of any general meeting, specifying the place, the day and the hour of meeting and in case of special business, the general nature of such business shall be given to the members in writing, mailed or delivered to the last post office address of the member advised to the National Association, or in such other manner, of any, as

may be prescribed in general meeting, but the non-receipt of such notice by any member shall not invalidate the proceedings at any general meeting.

No error or omission in giving notice of any annual or general meeting or any adjourned meeting, whether annual or general, of the members of the National Association shall invalidate such meeting or make void any proceedings taken thereat, and any member may at any time waive notice to any member, director or officer for any new meeting or otherwise, the address of any member, director or officer shall be her or his last address recorded on the books of the National Association.

ARTICLE 21

CONTRACTUAL OBLIGATIONS

see item 31 of old By-law

The directors may from time to time:

- (a) borrow money on the credit of the National Association;
- (b) issue, sell or pledge securities of the National Association;
- (c) charge, mortgage, hypothecate or pledge all or any of the real or personal property of the National Association, including book debts, rights, powers, franchises and undertakings, to secure any securities or any money borrowed, or other debt, or any other obligation or liability of the National Association.

From time to time the directors may authorize any director, officer or employee of the National Association or any other person to make arrangements with reference to the moneys borrowed or to be borrowed as aforesaid and as to the terms and conditions of the loan thereof, and as to the securities to be given therefor, with power to vary or modify such arrangements, terms and conditions and to give such additional securities for any moneys borrowed or remaining due by the National Association, as the directors may authorize, and generally to manage, transact and settle the borrowing of money by the National Association.

ARTICLE 22

FALSE REPRESENTATION

No member or non-member of the National Association shall falsely or fraudulently represent or pretend to represent themselves as a member of, or agent for, the National Association for the purposes of soliciting, collecting or receiving money or material without the written consent of the National Association.

No person or corporation shall wear, use or display, for the purposes of personal trade or business or for the purpose of inducing the belief that the corporation or person is a member of or agent for the National Association, or for any other purpose whatsoever without the written consent and authority of the National Association, the logo, name or other insignia legally incorporated with the National Association.

Any person or corporation making false representation as outlined above shall be subject to prosecution by the National Association.

ARTICLE 23

NON-INCORPORATED PROVINCIAL BRANCHES

23.01 Organization - In the case where a Province has only one Branch that Branch shall be the Provincial Branch and shall be governed by the By-law of the Allergy and Environmental Health Association of Canada in accordance with this Article. In the case

where the Provincial Branch is not incorporated, all legal authority resides with the National Association.

23.02 Name - The name of the Provincial Branches shall be The Allergy and Environmental Health Association followed by the name of the Province served, hereinafter referred to as the "Provincial Branch".

23.03 Geographical Scope - The geographical area served by the Provincial Branch shall be the Province in which it resides.

23.04 Provincial Branch Purpose - The purpose of the Provincial Branch is to provide information and promote a greater awareness of Environmental Illness.

23.05 Provincial Office - The office of the Provincial Branch shall be located in the Province as determined from time to time.

23.06 Membership List - The Provincial Branch shall maintain a list of names and most recent addresses of its members. The membership list shall be sent quarterly, by January 31st, April 30th, July 31st, and October 31st of each year to the National Association's office. For the release of membership lists refer to Article 3.03 Membership Lists.

23.07 Board of Management

i) Power of the Board of Management - The Board of Management will administer the affairs of the Provincial Branch in accordance with the policies, By-law and directives of the National Association.

ii) Size - The Board of Management shall consist of not less than four and not more than eighteen. Four of the Board of Management must be the Executive Officers of the Provincial Branch. The positions on the Board of Management are elected from the membership of the Provincial Branch.

iii) Tenure - Each elected Board of Management member shall serve a term of two years and shall be eligible for an additional term in the same position or different position, but shall not serve for more than two successive terms. However, if no officer is elected the incumbent Director will continue in office until a successor is elected or appointed. Also, any such individual shall be eligible for re-election after an absence of one year.

iv) Election - The Board of Management are elected at the Annual General Meeting of the Provincial Branch. One half of the Board shall be elected every other year. The election of the officers will alternate with the President and Provincial Branch Representative being elected one year and the Vice-President and Corporate Secretary/Treasurer being elected the next year. In the circumstances whereby the total number on the Board of Management is an odd number, an odd number of nominees shall be elected in an odd year and an even number of nominees shall be elected in the even year.

v) Vacancies - Vacancies on the Board of Management, however caused, may, so long as a quorum of Board members remain in office, be filled by the Board of Management from among the qualified members of the Provincial Branch if they shall see fit to do so. Otherwise such vacancies shall be filled at the next general meeting of the members, but if there is not a quorum of Board members remaining, the Board of Management must forthwith call a general meeting of the members to fill the vacancy.

vi) Quorum - Quorum of the Board of Management shall be a simple majority.

vii) Meetings - The Board of Management may hold its meetings at such place or places as it may from time to time determine. No formal notice of any such meeting shall be necessary if all the Board of Management are present, or if those absent have signified their prior consent to the meeting being held in their absence. Board of Management meetings

may be called by the President or Vice-President or by the Corporate Secretary on direction in writing of two of the Board of Management members. The Board of Management must meet at least four times a year. The Board of Management shall be notified of such meeting by person or telephone no less than three calendar days before the meeting shall take place, or shall be mailed to each Board of Management member not less than 14 calendar days before the meeting is to take place. The Board of Management may appoint a day or days in any month or months for regular meetings at an hour to be named and of such regular meetings no notice need be sent. The Board of Management may consider or transact any business either special or general at any meeting of the Board of Management.

viii) Voting - Motions arising at any meeting of the Board of Management shall be decided by a majority of votes. In case of an equality of votes the motion shall be considered defeated. The vote shall be taken by assent or dissent. A declaration by the Chairperson that a resolution has been carried and an entry to that effect in the minutes shall be admissible in evidence as prima facie proof of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolutions. In the absence of the President, the duties may be performed by the Vice-President or such other Board of Management member appointed from time to time for the purpose.

ix) Remuneration of Board of Management - The Board of Management of the Provincial Branch shall serve without remuneration and no member shall directly or indirectly receive any profit from the position as such; provided that the Board of Management members may receive reasonable expenses incurred in the performance of their duties as outlined in the policy of the Provincial Association.

23.08 Executive Officers

i) Organization of the Executive Officers - All Provincial Branches must have at least the following four Executive Officers: President; Vice-President; Corporate Secretary/Treasurer; and, Provincial Branch Representative and have the option of establishing an Executive Committee in accordance with the policy of the National Association.

ii) Power of the Executive Officers - The Executive Officers shall be entrusted with the power to act for the Board of Management when such Board of Management is not in session. Minutes of the Executive Officers meetings will be sent to the Board of Management by the Corporate Secretary within 14 Calendar days of the meeting.

iii) Duties of the Executive Officers - The duties of the four mandatory executive officers are as defined in the policy of the Provincial Branch and shall, where applicable, be in agreement with the Duties of the Executive Officers as defined in Article 6.03. With the exception of the Provincial Branch Representative whose duties shall be defined by the policy of the Provincial Branch and shall include the responsibilities of attending all meetings of the National Association's Board of Directors and reporting to the Board of Management of the Provincial Branch. The Provincial Branch Representative shall also be a Board member of the National Association and shall have the additional responsibilities of acting as the liaison officer between the National Association and the Provincial Branch.

23.09 Standing Committee - Refer to Article 8 Standing Committees

23.10 Nominating Committee - The Provincial Branch shall establish a Nominating Committee in accordance to Article 8, Paragraph 8.08 Nominating Committees.

23.11 Annual General Meeting of Members - The Annual General Meeting of the Provincial Branch for the members shall be held each year at a time and place designated by the Board of Management and shall not be later than four (4) weeks before the Annual General Meeting of the National Association.

23.12 General Members Meetings - General meetings shall be held for the membership at the discretion of the Board of Management.

23.13 Other General Meetings - Other General Meetings of the members may be called by the President, by a majority of the executive officers or upon written request of one-third or twenty members, whichever is less.

23.14 Quorum for Meetings of the Membership - Refer to Article 9, Paragraph 9.03 Quorum.

23.15 Voting - Refer to Article 9, Paragraphs 9.06 Voting of Members and 9.07 Proxy Voting Form.

23.16 Notices - Refer to Article 20 Notices.

23.17 Fiscal Year - The Fiscal Year of the Provincial Branch shall be from January 1st, to December 31st of each year.

23.18 Fidelity Bond - The Provincial Branch shall be included in the coverage of the National Association's Fidelity Bond.

23.19 Accounts - The Provincial Branch shall record, according to the National Association's policy, a chart of accounts. Each Provincial Branch shall establish an operating budget in accordance with its annual goals and objectives and report on a quarterly basis to the Executive of the Provincial Branch and to the National Association's Board of Directors by January 31st, April 30th, July 31st, and October 31st of each year. Each Provincial Branch shall appoint three signing Officers and all cheques shall be signed by at least two of the above mentioned signing Officers. In the event of cessation of the Provincial Branch, all monies will revert to the National Association with the final financial statement of the Provincial Branch.

23.20 Books and Records - The directors shall see that all necessary books and records of the Provincial Branch required by the By-law of the National Association or by any applicable statute or law are regularly and properly kept and are furnished at the Head office of the National Association as stated in this By-law. In the event of the books and records required by the National Association not being received by the Head Office of the National Association within one month of the required date, there shall be a penalty made against the Provincial Branch in accordance to the Policy and Procedures of the National Association.

23.21 Cheques etc. - Refer to Article 18 Cheques etc.

23.22 Deposits of Securities for Safekeeping - Refer to Article 19 Deposits of Securities for Safekeeping.

23.23 Contractual Obligations - The Provincial Branch, since it is not an incorporated body, may not legally enter into any contract, including, but not limited to, borrowing money. Any legal agreement can only be entered into through the National Association's Board of Directors.

23.24 Property - All property, including but not limited to cash and capital, coming into the charge of the Provincial Branch, whether arising from fundraising or otherwise, shall be the legal property of the National Association and subject to the By-law, policies and directives of the National Association, but where necessary for the operations of the

Provincial Branch the property shall be administered by the Board of Management of the Provincial Branch. This shall not include the property received through bequest or legacy to that Provincial Branch. Upon cessation of a Provincial Branch, all properties, regardless of origin, shall revert to the National Association.

23.25 Amendments to this Article - The Provincial Branch may recommend amendments to this By-law for consideration at the Annual General Meeting of the National Association. All amendments to this and every By-law of the National Association is subject to an affirmative vote by the members of the National Association

ARTICLE 24

INCORPORATED PROVINCIAL ASSOCIATIONS DEFINED

24.1 Organization - For the purposes of this Article the term Province shall refer to both Provinces and Territories in the Dominion of Canada. Where there is an incorporated Provincial Association as a Division of the National Association, the Provincial Association shall have a governing By-law that shall be ratified by the National Association. Any By-law of the Provincial Association may be deemed invalid by the Board of Directors of the National Association where it contradicts any provision contained in the By-law of the National Association.

24.2 Name - The name of the Provincial Associations shall be The Allergy and Environmental Health Association followed by the name of the Province served, hereinafter referred to as the "Provincial Association".

24.3 French Name - The name of the Provincial Association in the French language shall be the

24.4 Provincial Association Purpose - The purpose of the Provincial Association is to provide information and promote a greater awareness of Environmental Illness.

24.5 Geographical Scope - The territory served by the Provincial Associations shall be the Province.

24.6 Provincial Office - The Provincial office of the Provincial Association shall be located in an area which is determined from time to time by the Executive Committee of the Provincial Association.

24.7 Seal - The seal, an impression whereof is stamped in the margin hereof, shall be the corporate seal of the Provincial Association.

ARTICLE 25

MEMBERS OF INCORPORATED PROVINCIAL ASSOCIATIONS

see items 18, 19 and 24 of old By-law

25.1 Members - The members of the Provincial Association shall be those persons who are from time to time enrolled, or elected members of one of the following classes, as designated in the following clauses:

- a) **DISTRICT MEMBERS:** District members are those persons who apply and are accepted for membership through a District. The member shall be entitled to the services of their respective District and to a vote at the Annual General Meeting of the Provincial Association.

- b) **NON-BRANCH MEMBERS:** Non-Branch members are those persons whose application was not processed through a Provincial Branch. This individual shall be entitled to a vote at the Annual General Meeting of the Provincial Association
- c) **MEMBERS AT LARGE:** Members at large are members of the Provincial Association who are nominated and successfully elected by the general membership to serve on the Provincial Association's Board of Directors. Members at large are eligible to vote at the Annual General Meeting of the Provincial Association and at the Meeting of the Board of Directors.
- d) **FRIENDS OF THE ASSOCIATION:** Friends of the Association are those individuals or organizations who have contributed at least one thousand dollars to the Provincial Association. Such friends of the Association shall be recognized for their contribution by the Provincial Association throughout the fiscal year in which the donation was received, with the express knowledge and permission of the individual or organization.
- e) **HONOURARY MEMBERS:** Honourary members are those individuals the Provincial Association may wish to recognize as outstanding contributors to the Principles and Objectives of the Provincial Association. Such individuals shall be deemed honourary members at the discretion of the Board of Directors, and shall be entitled to a vote at the Annual General Meeting.

Articles 25.02 through 25.09 refer to Articles 3.02 through 3.09.

ARTICLE 26
BOARD OF DIRECTORS OF INCORPORATED PROVINCIAL
ASSOCIATIONS
 see items 3, 4, 8 and 9 of old By-law

26.1 Size of Board - The Provincial Association shall have a Board of Directors consisting of not more than seventeen persons with a maximum of 10 District and/or Branch Representatives.

- 26.2 Composition of Board** - The Board of Directors shall consist of the following:
- a) One Representative from each District with the geographical boundaries of the District to be defined by the Incorporated Provincial Association Policy and Procedures. This Representative shall be termed the District Liaison. There will be a maximum of 10 Districts.
 - b) Four members or members at large, who are duly nominated and elected at the Annual General Meeting of the Incorporated Provincial Association.
 - c) Two medical advisors, both of whom cannot be of the same medical specialty as determined by the Board of Directors from time to time, and who are duly nominated and elected at the Annual General Meeting of the Incorporated Provincial Association, who shall have full voting privileges but whose absence from the Board of Directors meeting shall not forfeit quorum.
 - d) Last immediately available Past-President as determined by the nominating committee.

Articles 26.03 through 26.11 refer to Articles 4.04 through 4.12.

ARTICLE 27
BOARD OF DIRECTORS MEETING OF INCORPORATED
PROVINCIAL ASSOCIATIONS
see items 5, 6, and 7 of old by law

27.1 Quorum - A majority of the Board of Directors shall constitute a quorum for the transaction of business.

27.2 Location - Except as otherwise required, by law, the Board of Directors may hold its meetings at such place or places as it may from time to time determine within the Province.

Articles 26.03 through 26.05 refer to Articles 5.03 through 5.05.

ARTICLE 28
EXECUTIVE OFFICERS OF THE INCORPORATED PROVINCIAL
ASSOCIATION
see items 10, 11, 12 and 13 of old By-law

Refer to Article 6.

ARTICLE 29
EXECUTIVE COMMITTEE OF THE INCORPORATED PROVINCIAL
ASSOCIATION
see item 10 of old By-law

Refer to Article 7.

ARTICLE 30
STANDING COMMITTEES OF THE INCORPORATED PROVINCIAL
ASSOCIATION
see item 10 of old By-law

Refer to Article 8 Standing Committees

ARTICLE 31
ANNUAL GENERAL MEETING
AND OTHER GENERAL MEETINGS OF THE MEMBERS
see items 20, 21, 22, 23 and 24 of old By-law

31.1 Time of Annual Meeting - The Annual Meeting of the Provincial Association shall be convened four weeks prior to the Annual General Meeting of the National Association or at such other time as the Board of Directors, in their sole discretion, may elect in each year for the election of the Directors, the review of the financial situation and auditor's report and other ordinary business of an annual meeting.

The Directors may, whenever they think fit, and they shall upon a requisition made in writing by any twenty-five or more members, convene a general meeting. The requisition shall express the object of the meeting proposed to be called, and shall be left at the office of the Provincial Association. Upon receipt of such requisition the Directors shall forthwith convene a general meeting and if they do not convene the same within twenty-one calendar days of the receipt of the requisition, the aforesaid requisitioners may themselves convene a meeting.

At all General Meetings of the Provincial Association, the President shall preside if present; if the President is not present, the Vice-President shall preside or such other Director as the Board of Directors may appoint from time to time for the purpose.

The Provincial Association in general meeting, by a resolution of which notice has been given in the notice calling this meeting, may remove any director before the expiration of his or her period of office, and may, by resolution, appoint another person in her or his stead, and the person so appointed shall hold office during such time as the director in whose place he or she was appointed would have held the same, if she or he had not been removed.

31.2 Location - The Annual General Meeting of the Provincial Association shall be held within the Province.

31.3 Quorum - A quorum for the transaction of business at any meeting of all members shall consist of not less than twenty members present in person or 1/3 of the membership whichever is less.

Articles 30.04 through 30.07 of this article refer to Articles 9.04 through 9.07.

ARTICLE 32
STAFF OF INCORPORATED PROVINCIAL ASSOCIATIONS
see item 14 of old By-law

Refer to Article 10.

ARTICLE 33
FISCAL YEAR OF PROVINCIAL ASSOCIATIONS
see item 25 of old By-law

The fiscal year of the Provincial Association shall be from January 1st to the 31st day of December in each year.

ARTICLE 34
AUDITORS OF PROVINCIAL ASSOCIATIONS
see item 27 of old By-law

Refer to Article 12.

ARTICLE 35
LEGAL COUNSEL OF PROVINCIAL ASSOCIATIONS
not in old By-law

Refer to Article 13

ARTICLE 36
FIDELITY BOND OF PROVINCIAL ASSOCIATIONS

The Provincial Association shall be included in the coverage of the National Association's Fidelity Bond.

ARTICLE 37
INDEMNIFICATION OF DIRECTORS OF PROVINCIAL ASSOCIATIONS

Refer to Article 15.

ARTICLE 38
EXECUTION OF DOCUMENTS OF PROVINCIAL ASSOCIATIONS
see item 16 of old By-law

Refer to Article 16.

ARTICLE 39
BOOKS AND RECORDS OF PROVINCIAL ASSOCIATIONS
see item 17 of old By-law

The Board of Directors shall see that all necessary books and records of the Provincial Association required by the By-law of the Provincial Association or by any applicable statute or law are regularly and properly kept.

ARTICLE 40
CHEQUES ETC. OF PROVINCIAL ASSOCIATIONS
see item 28 of old By-law

Refer to Article 18.

ARTICLE 41
DEPOSIT OF SECURITIES FOR SAFEKEEPING OF PROVINCIAL ASSOCIATIONS
See item 29 of old By-law

Refer to Article 19.

ARTICLE 42
NOTICES OF PROVINCIAL ASSOCIATIONS
see item 30 of old By-law

Refer to Article 20.

ARTICLE 43
CONTRACTUAL OBLIGATIONS OF PROVINCIAL ASSOCIATIONS
see item 31 of old By-law

Refer to Article 21.

ARTICLE 44
PROVINCIAL ASSOCIATIONS RELATIONSHIP WITH NATIONAL ASSOCIATION

The By-law of the Provincial Association shall be the governing laws of the Provincial Association notwithstanding any provisions to the contrary contained in the By-law of The Allergy and Environmental Health Association of Canada.

ARTICLE 45
FALSE REPRESENTATION OF PROVINCIAL ASSOCIATIONS

Refer to Article 22.

ARTICLE 46
DISTRICT OF INCORPORATED PROVINCIAL ASSOCIATIONS

46.1 Name - The name of the District shall be the name of the Incorporated Provincial Association followed by the name of the geographical area served, hereinafter referred to as the District.

46.2 District Organization - A District of the Incorporated Provincial Association shall be a division of the Incorporated Provincial Association organized in accordance with this article. Notwithstanding any provisions to the contrary contained in the By-law of the Incorporated Provincial Association, this article shall be the governing document of the District. However, any other By-law of the Incorporated Provincial Association contrary to this By-law shall take precedence.

46.3 District Purpose - The purpose of the District is to provide information and promote a greater awareness of Environmental Illness.

46.4 Geographical Scope - The geographical area served by the District shall be determined by the members of the District in accordance with the policy of the Incorporated Provincial Association.

46.5 District Office - The office of the District shall be located in an area which is determined from time to time by the Executive Officers of the District .

46.6 Membership List - The District shall maintain a list of names and most recent addresses of its members. The membership list shall be sent quarterly, by January 31st, April 30th, July 31st, and October 31st of each year, to the Provincial Association's office. For the release of membership lists refer to Article 3.03 Membership Lists.

46.7 Board of Management - Refer to Article 23 paragraph 23.07.

46.8 Executive Officers - Refer to Articles 23 Paragraph 23.08.

46.9 Standing Committee - Refer to Article 8 Standing Committees.

46.10 Nominating Committee - The District shall establish a Nominating Committee in accordance to Article 8.08 Nominating Committees.

46.11 Annual General Meeting of Members - The Annual General Meeting of the District for the members shall be held each year at a time and place designated by the Board of Management and shall not be later than four (4) weeks before the Annual General Meeting of the Incorporated Provincial Association.

46.12 General Members Meetings - General meetings shall be held for the membership as the Board of Management sees fit.

46.13 Other General Meetings - Special Meetings of the members may be called by the President, by a majority of the executive or upon written request of one-third of the members.

46.14 Quorum for Meetings of the Membership - Refer to Article 9 paragraph 9.03.

46.15 Voting - Refer to Article 9, Paragraphs 9.06 and 9.07.

46.16 Notices - Refer to Article 20.

46.17 Fiscal Year - The Fiscal Year of the District shall be from January 1st to December 31st of each year.

46.18 Fidelity Bond - The District shall be included in the coverage of the National Association's Fidelity Bond.

46.19 Accounts - The District shall record, according to the Provincial Association's policy, a chart of accounts. Each District shall establish an operating budget in accordance with its annual goals and objectives and report on a quarterly basis to the Executive of the District and to the Provincial Association's Board of Directors by January 31st, April 30th, July 31st, and October 31st of each year. Each District shall appoint three signing Officers and all cheques shall be signed by at least two of the above mentioned signing Officers. In the event of cessation of the District all monies will revert to the Provincial Association with the final financial statement of the District.

46.20 Books and Records - The directors shall see that all necessary books and records of the District required by the By-law of the Provincial Association or by any applicable statute or law are regularly and properly kept and are furnished at the Head office of the Provincial Association as stated in this By-law. In the event of the books and records required by the Provincial Association not being received by the Head Office of the Provincial Association within one month of the required date, there shall be a penalty made against the District in accordance to the Policy and Procedures of the Provincial Association.

46.21 Cheques etc. - Refer to Article 18.

46.22 Deposits of Securities for Safekeeping - Refer to Article 19.

46.23 Contractual Obligations - The District, since it is not an incorporated body, may not legally enter into any contract including, but not limited to, borrowing money. Any legal agreement can only be entered into through the National Association.

46.24 Property - All property, including, but not limited by, cash and capital coming into the charge of the District, whether arising from fundraising or otherwise, shall be the legal property of the Provincial Association and subject to the By-law, policies and directives of the Provincial Association, but where necessary for the operations of the District, the property shall be administered by the Board of Management of the District. This shall not include the property received through bequest or legacy to that District. Upon cessation of a District, all properties, regardless of origin, shall revert to the Provincial Association.

46.25 Amendments to Article 46 - The District may recommend amendments to this article for consideration at the Annual General Meeting of the Provincial Association. All amendments to this and every article of the Provincial Association is subject to an affirmative vote by the members of the Provincial Association.

ARTICLE 47
AMENDMENT OF ARTICLES PERTAINING TO THE INCORPORATED
PROVINCIAL ASSOCIATION
THOSE BEING ARTICLES 24 TO 47
see item 26 of old By-law

The articles of the Incorporated Provincial Association may be repealed or amended by By-law enacted by a majority of the directors at a meeting of the Board of Directors and sanctioned by an affirmative vote of at least two-thirds (2/3) of the members at a general meeting duly called for the purpose of considering the said By-law.

ARTICLE 48
AMENDMENT OF THIS BY-LAW
see item 26 of old By-law

The By-law of the National Association may be repealed or amended by By-law enacted by a majority of the directors at a meeting of the Board of Directors and sanctioned by an affirmative vote of at least two-thirds (2/3) of the members at a general meeting duly called for the purpose of considering the said By-law.

PASSED by the directors this ____ day of _____, 1989.

UNANIMOUSLY CONFIRMED, RATIFIED AND APPROVED by the Members this
____ day of _____, 1989.

WITNESS the corporate seal of the Corporation.

THE ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION OF CANADA

Per:

President

Corporate Secretary

**The Human Ecology Foundation of Canada
Allergy and Environmental Health Association of Ontario**

ANNUAL GENERAL MEETING

Saturday, April 29, 1989

St. Paul's United Church Auditorium
450 King Street East, Cambridge (Preston), Ontario

Lydia Dotto, author of *Thinking the Unthinkable*,
will speak on
"Our Health in the 1990's"

9:30 am to 10:45am	The Human Ecology Foundation of Canada
11:00am to 12:15pm	Allergy and Environmental Health Association of Ontario
2:00pm	Speaker, Lydia Dotto

Due to the sensitivities of our members, PLEASE no perfume or aftershave.
Free admission, all welcome.

Directions: From Toronto, take Highway 401 west and exit at exit number 278. Continue a short distance and the road divides into 278A and 278B. Take 278A East, Cambridge (Preston). This is Highway 8. Continue on Highway 8 towards Cambridge, down a hill to the Petro Canada station, turn left. Drive one block and turn right at the Cambridge Dorchester Hotel (King St.). Continue over a bridge to Eagle Street (stop light). Go one block further and the church is on the right corner of King and Waterloo Streets. Enter the auditorium off of Waterloo St. (Distance from 401 to the church is approximately 2km). From London take Highway 401 East and exit at Highway 8 East Cambridge (Preston). Continue on Highway 8 as above.

If you are unable to attend the Annual General Meeting, please appoint a proxy by completing the two proxy voting forms below, giving it to your proxy to bring to the meeting, and sending a copy to: 10 George St. N., Cambridge, Ontario N1S 2M7.

The undersigned, _____, a member in good standing with the **Human Ecology Foundation of Canada** hereby appoints _____ as proxy with power of substitution, to attend and to vote for me at the Annual General Meeting on April 29, 1989, or any adjournment thereof. Dated this _____ day of _____ 1989.

The undersigned, _____, a member in good standing with the **Allergy and Environmental Health Association of Ontario** hereby appoints _____ as proxy with power of substitution, to attend and to vote for me at the Annual General Meeting on April 29, 1989, or any adjournment thereof. Dated this _____ day of _____ 1989.

HUMAN ECOLOGY FOUNDATION OF CANADA INVITES NEW MEMBERS

If you'd like to join H.E.F. Canada, please fill in this form and send it to your nearest branch office.

H.E.F. HEAD OFFICE/DUNDAS
46 Highway 8,
Dundas, Ontario L9H 4V3

WATERLOO-WELLINGTON BRANCH
11 Drew Avenue,
Cambridge, Ontario N1S 3R2

OTTAWA BRANCH
P.O. Box 11428, Station H,
Nepean, Ontario K2H 7V1

TORONTO BRANCH
R.R. #5 (10 Oak Ridge Drive)
Georgetown, Ontario L7G 4S8

NEW BRUNSWICK BRANCH
P.O. Box 4073,
Dieppe, N.B. E1A 6E7

QUINTE BRANCH
c/o P.O. Box 202
Cannifton, Ontario K0K 1K0

HALIFAX-DARTMOUTH BRANCH
P.O. Box 11,
Bedford, N.S. B4A 2X1

P.E.I. BRANCH
22 Poplar St.
Sherwood, P.E.I. C1A 6S7

HAMILTON-BURLINGTON BRANCH
356 Rankin Drive,
Burlington, Ontario L7N 2B4

LONDON BRANCH
1509 Rushland Avenue,
London, Ontario N5V 1X6

MEMBERSHIP APPLICATION (including subscription to the *Quarterly*):

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I am enclosing a cheque ☐ or money order ☐ for twenty dollars (\$20) to cover one year's membership, including four editions of the H.E.F. Canada *Quarterly*. In addition, I am enclosing a donation of \$_____ (optional) to further the purposes of the Foundation. Charitable donations are tax deductible.

Second Class Mail Registration Numbers

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